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SUMMARY

OF THE

TRANSACTIONS OF THE

COLLEGE OF PHYSICIANS

OF PHILADELPHIA.

VOLUME II.

FROM SEPTEMBER 1, 1846, TO OCTOBER 2, 1849, INCLUSIVE

LEWIS LIBRARY,
COLLEGE OF PHYSICIANS
OF PHILA.

PHILADELPHIA:
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1849.

SUMMARY

OF THE

TRANSACTIONS OF THE

COLLEGE OF PHYSICIANS

OF PHILADELPHIA.

FROM SEPTEMBER TO NOVEMBER, 1846, INCLUSIVE.

Stated Meeting, September 1st, 1846.

Dr. HEWSON, President, in the chair.

Present, seventeen members.

The Committee on Publication reported that they have issued the twelfth number of the Summary of the Transactions of the College, and as this number completes the first volume, they have added a title page and index.

On motion, it was Resolved, that the subject of the disposal of the surplus copies of the first volume of the Summary, be left entirely to the discretion of the Committee on Publication.

The Library Committee reported that they had received from the Sydenham Society of London, the second volume of the works of Paulus Ægineta.

A communication was received from Dr. S. D. Gross, of Louisville, Kentucky, acknowledging the receipt of the notice of his election as an Associate.

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Dr. Hewson inquired of the Fellows if they had observed, in the cases of cholera morbus which had occurred this season an unusual frequency of rice water discharges: whether, he remarked, it has resulted from the fact of our attention having been more particularly directed to the character of the discharges in this disease, since the occurrence of the epidemic cholera of 1832, or from there being something peculiar in the character of the cases seen by him during the present summer; he has certainly noticed the occurrence of the rice water discharges in the disease more frequently this year, than he had in the simple forms of cholera at any former period. The cases in which these discharges occurred were not of a violent character, and yielded readily to a simple treatment.

In one case of cholera which fell under the Doctor's notice, brought on by eating huckle-berry dumplings, the discharges were of a bright red colour, like poke-berry juice—this colour did not result from the juice of the berries contained in the dumplings, but was evidently a secretion or exhalation from the intestines. This case yielded very readily under the use of the acetate of lead.

Dr. Huston stated that he had seen two cases similar to the one last described by the President of the College—they were unattended with any very decided pain and were readily cured. He considered them as of a dysenteric character. And here he would remark, that he has seen this season a very large number of cases of genuine dysentery, more perhaps than has fallen under his notice during the last twenty years. The disease was marked by considerable fever, generally large discharges of a bloody mucus, or of blood mixed with pus; great pain and tenesmus; in some cases, however, the discharges were small in quantity, and resembled the scrapings of meat. None of the cases that had fallen under his care terminated fatally.

Dysentery, while it prevails in many sections of the country as an endemic, producing often great mortality, has heretofore rarely occurred to him in the city to any extent, at least in its more aggravated forms.

Dr. Huston stated some interesting facts, tending to prove the contagiousness of dysentery as it occurs in the country.

Dr. Jackson had resided many years in the country, and is acquainted with localities where dysentery occurs annually, and is sometimes very fatal. He knows of a district in Chester County remarkable for its general exemption from disease, where dysentery prevails every year.

Dr. Moore inquired of the Fellows, what was their experience in the treatment of dysentery—conflicting views are entertained on this subject, and as the disease is now prevalent, he would like to obtain the views of the members.

In reply to Dr. Moore's inquiry, Dr. Huston remarked, that he had, unfortunately, a great deal of experience in the treatment of dysentery, having in early life practiced in a district of country where, during several seasons, it prevailed extensively; he had suffered five attacks of the disease himself, in several of which, he had been extremely ill.

In the section of country where he had formely resided, (near Chester, in this State,) the disease generally broke out in spots and spread amongst some four or five families in a particular neighbourhood, appearing to be communicated by contagion. The disease in this form, was marked by violent symptoms, there was an almost constant desire to go to stool, with excruciating pain, causing strong men to cry out with the suffering; there was intense thirst in many instances; in some cases, petechiæ, stools resembling bloody water or meat scrapings were not uncommon; he generally lost some patients, and sometimes two or three in one family. The practice pursued by him in these epidemics was to give calomel, opium, and ipecac., with castor oil and laudanum, injections, and emollient drinks.

Recently, however, Dr. Huston relied mainly on opium in the treatment of dysentery; he seldom gives calomel, and then only in cases where the tongue is furred. His rule is, to give the opium in sufficient doses to stop the pain--nothing exhausts the system like pain--if restricted to blood-letting or opium in the treatment of all abdominal inflammations, he would unhesitatingly take the opium; he has no fear of its stimulating properties in these diseases when given in sufficiently decided doses. In addition to the opium, the patient should be kept quiet, and food should be selected which will not produce much fæces. If the stomach is irritable, the opium may be given in enemeta, if not, by the mouth or by enemeta, as circumstances may dictate. He generally begins the treatment by giving 2 grs. to an adult, and this dose is repeated until the influence of the remedy is felt, when the quantity is diminished; his rule is to give the opium immediately after a stool, especially if it be given in the form of enema. Dr. Huston has laid aside the use of ipecac. in this disease, from its tendency to purge; when combined with the opium, even in the dose of $\frac{1}{2}$ gr. it will frequently purge; this fact he has repeatedly tested to his satisfaction. The ipecac. has also a tendency to produce nausea and vomiting, even in small doses, effects which it is desirable to avoid in this disease. In some cases he has prescribed 15 drops of laudanum after each stool, with the happiest effect; relief to the pain, and free diaphoresis being produced. The manner in which opium acts in this disease, is, besides its constitutional effect upon the nervous and vascular systems, by controlling the contraction of the muscular coat of the bowels, which is the great source of pain and danger. Since pursuing the opium practice, Dr. H. has had much less trouble in the treatment of dysentery; cases

generally get well in a week, and he has seen few fatal cases. How this treatment might succeed in the more violent forms of epidemic dysentery occuring in country situations, Dr. H. will not pretend to assert; if he were to encounter such cases again he would certainly meet them with less fear than formerly, in the confidence that this course of treatment would be more effectual than that which he had previously adopted.

In regard to the use of castor oil, Dr. Huston remarked, that he was in the practice of giving this article in the dose of a teaspoonful every two or three days, for the purpose of producing a slight purgative effect and thus of keeping the bowels clear of fœculent matter; he preferred this small dose to the larger ones usually given, and found it to answer the purpose fully.

Dr. Shallcross inquired whether in using the term purging, in reference to the use of ipecac. Dr. H. meant the production of bilious discharges or fœculent stools, or the ordinary dysenteric stools?

Dr. Huston replied, that he meant an increase *in the frequency of the stools*, whatever might be the character of the discharges at the time--some dysenteric, some fœculent—he has rarely seen scybalæ.

Dr. Condie was surprised at the remarks of Dr. Huston in opposition to the use of ipecac. combined with opium in the treatment of dysentery; the evidence of a large number of the most authoritative writers upon the disease was decidedly in favour of the employment the remedy either alone or in combination with opium; and from his own experience he should form certainly a very high estimate of its beneficial effects in the ordinary forms, at least, of the disease. He had expected, also, to hear some notice taken of the use of the acetate of lead in dysentery. He had employed it extensively in combination with opium, by the mouth, or in solution, as an enema; and when properly timed, he is convinced that it is a remedy from which the best effects may be anticipated.

Dr. Huston rejoined, that he is well acquainted with the reputation ipeca'c., has maintained as a remedy in dysentery for the last 30 years, and has himself employed it extensively, but had abandoned it, from finding it almost invariably to do harm, from its tendency to purge, even in small doses, in irritable conditions of the bowels: of its injurious effects his experience in a multitude of cases had convinced him. He has repeatedly known patients to be up and down continually during the night, when he had given the ipecac. in combination with opium, but by leaving out the ipecac. and giving the opium alone the bowels have become speedily quieted, and the disease relieved. He has arrived at this conclusion from experience, in opposition to preconceived veiws, and to the opinions held by others.

In regard to the use of sugar of lead with opium in dysentery he had tried it, and was pleased with its effects in mild cases where the pain was not very severe, especially when much blood was

discharged, but has not derived the advantage which he had anticipated from it, in the more severe cases.

Dr. Ashmead generally treated dysentery by the use of small doses of castor oil with 5 to 10 drops of laudanum, every two or three hours. This was the practice of the late Dr. Bentzel of Germantown, an old and experienced physician of that place, who had seen much of the disease.

Dr. Moore said that this was the practice also while he was connected with the Pennsylvania Hospital; castor oil and laudanum were chiefly relied upon during the day, with a sedative dose of laudanum at night. This method, however, did not always succeed. He was partial to the use of a combination of calomel, opium, and ipecac., especially in the early stages of the disease. He has, however, recently seen all the bad symptoms of dysentery relieved in the course of twenty-four hours, by the use of the formula known as Hope's mixture.

Dr. H. H. Smith stated that he would direct the attention of the College to one point of practice, which had not been noticed in the course of the discussion, and which was a favorite measure with the French practitioners, viz: the application of leeches to the verge of the anus. In cases where the tenesmus was severe, he believed this practice would be found very beneficial.

Drs. Moore and Huston both spoke of the salutary effects of this remedy in their experience. Dr. Huston had also seen great advantages in some cases from the use of cold water injections.

Dr. S. Jackson, did not like to hear ipecac. denounced. He thought its purgative qualities no disadvantage in the treatment of dysentery, nor had he any objection to its producing nausea. He has used calomel and opium, in combination, in small and repeated doses, with advantage, rather inviting the occurrence of a mild salivation, inasmuch as it may be received as an axiom that a patient with dysentery is safe when salivation is induced.

Dr. Parrish remarked, that he had been accustomed, on first commencing practice, to rely upon the castor oil and laudanum treatment, with a sedative dose of opium, either by the mouth or injection, at night. But this practice, when continued for any length of time, became so disgusting to patients, that it was with difficulty they could be induced to persevere with it. The stomach became sick, and oftentimes the medicine was rejected. Within the last three or four years, Dr. P. has relied more upon the opiate treatment, with Hope's mixture, and frequent anodyne injections.

The small doses of nitric acid in combination with camphor-water and laudanum, contained in this mixture seem to meet the indications in ordinary cases. The acid appears to act favorably on the liver; and if the dejections are watched it will be found that if the medicine produces the desired effect, the stools will change their character to a bright orange colour, and with this change, the tor-

mina and tenesmus will abate and soon disappear; and by a continuance of the mixture for a short time the complaint will yield.—The dose which Dr. P. usually gives is a wineglassful every three or four hours, if the mixture is prepared according to the formula of Dr. Hope; but the dose to be diminished if a larger quantity of the acid is added, as is sometimes done.

How this simple practice would answer in the severer forms of epidemic dysentery which occur in the country, it is difficult to say, but in the cases which ordinarily present themselves in city practice, it is effectual, and relieves the patient without producing that nausea and disgust which attend most of the other methods of treatment.

Dr. Huston considered the practice detailed by Dr. Parrish, as differing but little from his own, the opium being one of the most important ingredients in the mixture referred to.

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Dr. Condie related the particulars of a case of intense circumscribed pain, apparently of a neuralgic character, situated over the surface of the tibia just above the ankle joint. The patient was a delicate lad, of about thirteen years of age. He was affected at first with slight febrile symptoms of a remittent character; in a very short time the local pain occurred, and gradually increased in severity. It was unattended, for some time after it commenced, with any degree of swelling or redness of the affected part; in a few days, however, œdematous intumescence of the limb took place, extending over its inner surface, from the ankle to within a few inches of the knee, with a slight erythematous redness of the skin; the indications of a deep seated formation of matter soon presented themselves; a free incision being now made, a quantity of pus was discharged, and the bone was found to be denuded of its periosteum and roughened to some extent. The case was treated by leeches, purging, position, cold applications, and the usual antiphlogistic remedies.

The Doctor remarked that he had not detailed the outlines of the present case from any thing peculiar in its features, but to direct attention to the fact of the repeated occurrence of these deep seated inflammations, along the course of the long bones, in children, the importance of an early diagnosis, and of an early incision through the soft parts down to the seat of the inflammation. This means he has found to be the one best adapted to afford speedy relief to the intense pain, and to shorten the duration of the disease; which if not early arrested, is liable to give rise to very serious symptoms of long continuance, and to cause the death of a greater or less portion of the bone.

Dr. Ashmead was glad that the attention of the College had been called to this subject. He was perfectly familiar with the cases

referred to by Dr. Condie, and was an advocate for an early incision, as soon, indeed, as the true character of the disease was ascertained. He believed that the mismanagement of these cases, or a neglect, in their early stage, of the proper means for the arrest of the inflammation, has been, in numerous instances, the cause of the destruction of the long bones of the extremities. He believed, indeed, from numerous facts which had fallen under his observation, that necrosis of the long bones was, in the greater number of instances, the result of these deep seated inflammations, implicating the periosteum, and was convinced that the best means of preventing the destruction of the bone, is to resort to early incisions in every instance of deep seated inflammation along the course of the bones of the extremities.

Dr. Jackson considered the cases referred to by Dr. Condie to be well marked cases of periostitis, and that the proper remedies to arrest the inflammation and prevent the mischief that would otherwise result, are depletion, local or general, according to circumstances, early resorted to, and carried to a proper extent, purging, blisters, position, and the other anti-phlogistic means. He did not consider that so severe an operation as an incision down to the bone was either necessary or proper, unless when suppuration had been allowed to occur, either from neglect or the inefficiency of the treatment in the early stage of the inflammation.

Stated Meeting, October 6th, 1846.

Dr. Wood, Vice President, in the Chair.

Present, twenty-four members.

Dr. S. Jackson, formerly of Northumberland, Pa., presented and read the following: being

THE ANNUAL REPORT

ON THE

THEORY AND PRACTICE OF MEDICINE.

It was last year our ungrateful duty to animadvert on a theory of fever by Dr. Willis and Mr. Hopkins; but we now congratulate with you, that no such task devolves upon us at the present time. The numerous authors of the last bountiful year, have yielded to the approved practice of pursuing medicine as an art partly tentative and

partly rational, employed principally in concatenating facts and observations for the probation of their brethren. This is the appropriate province of the physician in the present as in all past ages—that is, to observe and compare, to verify and record. Upon this foundation, the edifice of medicine has rested unmoved, a structure of vast dimensions and towering height; which, tho' continued in building thro' many centuries and therefore subject to the blasts of opinion among a long succession of architects, is yet daily rising in permanent strength and beauty, the admiration of the learned, and the solace of those who recline in its salutary shade.

But, whilst looking with wonder on the labours of the past, we are mortified in finding, that certain withering or torpedo theories have lately seized upon the minds of many who ought to stand forth among the principal architects. To make a report upon these, with a few desultory observations, seems to be our province according to your appointment: and as they are likely to occupy more than the reasonable length of a lecture, I beg leave to be excused from the task of reporting on the voluminous practice of the last year—a task too great for our humble abilities, too extensive to be patiently heard, of too much interest to admit of a condensed selection, and sometimes rather invidious for the reporter. We shall therefore confine ourselves to some little theories which spring up like weeds in the garden of science, and ought to be rooted out as the Bohun Upas, breathing around its pernicious influence.

Ever since the invention of physiological medicine, a theory that nature is paramount to art, has been indulged by some physicians, and has been eagerly caught at and cherished by many of the *idiotai* who are always ready to favour any views which relieve them of the discomfort of disgusting pills and nauseating drafts, of pouring out their blood and blistering their skin. While the Brousaian medicine taught a more careful inquiry after the seats of diseases and also the direct application of remedies thereto, it denounced those general means which excite a healthy revulsion thro' the whole system; hence it has happened, that when the doctrine and practice were abandoned, the habit of declaiming against heroic remedies still kept possession of the mind, and hence we hear many of those whose practice is correct and salutary, whose talents and morals command respect, still denouncing all energetic practice and referring their own cures to the salutary genius of nature. With the learned and the wise however, this all passes for mere declamation, a bad practice deduced from the obsolete doctrine, and now continued when the doctrine itself has passed away: thus verifying the happy comparison of Persius, that the breaking of a bad habit is like to a dog's breaking his chain—he runs about with a portion weighing heavy on his neck, by which he is seized and again enslaved.

This practice of declaiming, tho' esteemed useful by its authors and perhaps innocuous with respect to them, is of dangerous tenden-

cy to the young, and to feebler intellects of whatever age, as authoritative and popular teachers are known to infuse a dangerous enthusiasm into the unguarded minds of their admiring pupils. Dr. Rush bled far less than many others, yet on finding that bleeding was too sparingly used by European writers, he found great delight in the lauding of this remedy, forgetting that he was addressing an American audience, many of whom were his grandchildren in medicine and had come to his school already very deeply imbued with the doctrine of more blood. From such an example it may well be feared, that the practice of extolling nature over art and of declaiming in favour of mild remedies, may be the means of leading to a feeble and inefficient practice. Dr. Cullen says, " it appears to me that the doctrine of nature curing diseases, the so much vaunted Hippocratic method, has often had a baneful influence on physic, as leading physicians into a feeble practice:" and Dr. Rush says, " it is impossible to calculate the mischief which Hippocrates has done, by first marking nature with his name and then letting her loose upon sick people." These are two of the highest authorities, and their warning voice ought ever to be heard with deference.

We are well aware that the controversy between us and the devotees of nature, has often arisen from a reckless use of those indefinite phrases *too much* and *too little*, but this *concordia discors* cannot always obtain among whomsoever the subject may be discussed. What cannot be measured or numbered, is left to the guidance of opinion, and when the continual cry is—nature, nature--the imagination is left to determine where nature ends and art begins. Let popular teachers and all influential characters beware how they scatter, like Ulysses, ambiguous phrases among the people; let them beware of riding a hobby, for they will make it ten-fold the hobby of all their personal admirers and of all over whom they exert a predominant influence. We are not writing this merely to fill up a portion of the report we have been commanded to make, but solely for the purpose of calling the attention of the College to what we have considered as a serious evil, one that may long continue to afflict the Profession.

Is our science really something or is it nothing? Is it an appreciable art, or is it merely a vain-glorious imagination? If it consist merely in " the charms of sound, the pomp of show;" if, as Horace says—

> The power of words and soothing sounds appease
> The raging pain and lessen the disease,

Then we have nothing more to say; let the homœopathic conjurer take all our patients and relieve us from all further care; we shall sit down to our meals and lie down at night, without envying our cattle the comfort of eating and sleeping in peace. If however it is a fact, that ever since the days of Hippocrates, bleeding relieves the inflamed brain, and sweats eliminate a fever, then is medicine an

invaluable art; and such indeed, it has been considered, even in its periods of great rudeness. Celsus says that, in his time, it existed every where, even among the most unlettered nations: true, for it is the gift of heaven through nature assisted by human reason. The opinion then of Hippocrates, that necessity caused it to be sought and found, is utterly erroneous. It was probably observed that a hemorrhage cured a headach, that a puking relieved the oppressed stomach, that a spontaneous sweat resolved a fever; now the human mind could not be long in discovering various means of imitating these evacuations. Here was the beginning of medicine, rude indeed but strictly rational, for here is the use of reason too evident to pass unnoticed. Thus empiricism led to ratiocination, and this in its turn, led back to a rational empiricism; the two then most happily conjoined have created the great science of medicine and transmitted it with increasing lights from one generation to another: as the runners in the Athenian games handed forward their torches, so physicians have handed down the lamp of life.

Et quasi cursores vitai lampada tradunt.—*Lucret.* II. 78.

Medicine then has been, since the very beginning, a rational art; for if in seeking help for the diseased body, the ancients had proceeded as do modern impostors, the science of health would never have gained an existence. Had they begun with a few imaginations and then had adapted medicines thereto which produce no sensible effect; or on the other hand, had they tried various real agents, with no more regard to experience than is shown by our present quacks, the healing art would never have been discovered; nothing but disappointment would have followed, and all hope from man would have been abandoned, as certainly as have been the search after the philosopher's stone, perpetual motion, or the art of flying.

The science then which the very constitution of man requires, and which heaven itself has taught, has not only been gladly received, but has been cultivated with zeal and success, till it has become the second solace of suffering humanity. That this is literally true, let us consider what would be the condition of mankind, were all recollections of medicine suddenly annihilated. Oh! nature, nature, says Dr. Forbes, would resume her empire and being undisturbed, would cure more than your drugs. But, it is only philosophers who believe in nature's cures, the people know her only through the sickness and death she brings upon them: tell then a frantic mother that nature will take care of her child, what solace does she derive from the unmeaning discourse? But let the physician, in whom she has been accustomed to trust, approach the bed, and hope beams in her eyes: though the patient be finally torn from her bosom, she finds perpetual solace in the belief, that all was rationally done.

Can any one suppose that medicine would have stood the test of

so many ages, had it not been proved and found to be a beneficent art? is it possible that great and good men, after spending a long life in the practice thereof, should die in full persuasion of its great utility, should recommend it to posterity, when eternal judgment as they believed was now opening upon them—is this possible, if they had not strong reasons for their steady belief? what made even Hippocrates a great name in ancient Greece? why was his help implored by the Persian king, if there was not an evident reason founded in the beneficence of his art? how could Mr. Pott say with his dying breath, "my little taper is nearly extinguished, I hope it has burned to the advantage of others?" why are quacks so often sought by the simple and ignorant? is it not that they promise to fulfil the office of physicians and that they have *luckily* made discoveries in the art they have not learned? View the subject in every possible light, you will find that medicine has had the respect of mankind in all ages: if it has occasionally a few detractors and pretending sceptics, so have the plainest truths that experience has taught. Some have pretended to doubt of an intelligent first cause; some of the existence of a material world; some maintain that the decillionth part of matter is more operative than the whole; some great men have found that all matter is nothing but *congeries* of centres of attraction and repulsion without any hypostasis whatever. With all these people, physicians have nothing to do, unless to blister their heads and give them hellebore; it is by men who are not insane, that the utility and truth of science ought to be tried.

Suppose then, that medicine is a most beneficent art, it would be well to inquire by what means it has become such, whether by the collective genius of those who are perpetually declaiming in favour of nature, or of those more impetuous spirits who suppose, that wherever there is sickness or debility, there the physician is wanted and generally the apothecary; we say generally, for all are aware of the maxim which even Rush used to quote from Hippocrates, "that no medicine is often the best." Say then, thou devotee of nature, whether have the *expecting* physicians or the *perlubaters* done most for the science, and whose works have been most read and quoted? Dr. Forbes will probably answer—the *disturbers* have done all, the science as it now stands is theirs, hence I have condemned it in my Review, and have there said—"that in a large proportion of cases treated by allopathic physicians, the disease is cured by nature and not by them: that in a less but still not a small proportion, the disease is cured by nature in spite of them, their interference opposing instead of assisting the cure." We think it has become an axiom that a man who declaims against his own art, cannot be a successful practitioner thereof; and should you take a specimen of Dr. Forbes' practice from this very Review, you will be convinced that the axiom is not always fallacious.

"*Many years ago, we had occasion to treat an epidemic diarrhœa of*

considerable violence, but not dangerous. Finding our patients recover as fast under one as another of several methods, we thought there would be no unpardonable lèse majesté *in carrying our trials one step further. Accordingly we put half of our remaining patients on a course of orthodox physic and half on homœopathic doses of flour, and it puzzled us sadly to say which was the most successful treatment.*"

One thing is here greatly needed and most inexcusably neglected, that is—the several methods of treatment; that the reader might consider, whether they were not all injudicious. The Doctor does not trust them to paper, and as they were all about equally useful or useless, the various medicinal methods not succeeding better than flour or nature, have you not reason to suppose them as all erroneous? Nay, the Doctor may reply, "nature cured in the best manner possible and my medicinal methods did the same." It may have been so, there is no certain proof to the contrary; but it would appear, that when the Doctor was so busy in an epidemic diarrhœa "of considerable violence," and yet effected nothing, there must have been a lamentable deficiency of skill. Take the fact as stated by himself and it argues strongly against his practical faculties; it was probably the dawnings of that "darkness visible" which has since appeared above the horizon and has been quaintly enough called—YOUNG PHYSIC. Had all the physicians who record our science but practiced and written thus, what would medicine be at the present day? Did ever the followers of Hahneman pronounce such a sentence of condemnation on their globules?

The above specimen of practice goes to show what report confirms, that the author of this libel against the profession, was never a noted practitioner. Learning, talents, and a ready pen, are cheerfully conceded him; but even in these he cannot be compared with the great Haller who was also a very unsuccessful physician, owing as supposed to his physiological and literary avocations. It is not by reading, writing, lecturing, and talking, that a physician is made, but by burying a man soul and body in the chambers of sickness, for many years of days and nights in his early life. To begin late, is like old Cato learning Greek, or the octogenarian Socrates learning to dance. The supposed duties, moreover, of many English physicians, are not calculated to make them successful practitioners or instructive writers; they seldom see the patient till the apothecary has done his best and nature her worst, then they give their advice and retire. Other patients they receive in their study, write them a prescription, and often see them no more. The operations of medicine and the pangs of morbid nature, they seldom witness, hence Dr. Johnson would not be satisfied with the whole college unless attended by the humble Levet—

> "Whose vigorous remedy displayed,
> The power of art without the show."

But it seems that the learned doctor has set about the reformation

of that science which has not succeeded in his own hands, and in the very beginning of this great work which he calls *Young Physic*, he declaims like all reformers against nearly all preceding and co-temporary practitioners, quoting as the fashion is, from the grumblings of Bacon, that medical laborers travel in a circle and not in progress, forgetting that the author of the *De Augmentis* wrote this sarcasm nearly two centuries before the author of *Young Physic* was born.

The drift of Dr. Forbes' Review, is to prove, that nature is the grand restorer; that in homœopathia she is the sole agent; that since this new art is really nothing and yet cures as certainly as the old science, it must be nature that cures at any time; that your bleeding in phlogosis and tonics in pure debility, are worse than nothing unless in the hands of a very few favoured sons of nature to whom she has revealed her mysteries as taught in *Young Physic.* He concedes too, that homœopathia cures as large a proportion of dangerous diseases as does the physicians, and he adduces some statistics to prove this—what say you, statistics? of a homœopath? *O medici, mediam pertundite venam;* bleed him, cupping glasses, hellebore, send him to Anticyra—the man is unquestionably monomaniac. Statistics though useful, are often dangerous, and to hear them from the mouth of a homœopath, is enough "to make you fly beyond Canada and the Frozen Sea." Have not these men founded their system on the pretended fact that bark will create an intermittent fever in a healthy body and that Hahneman effected this miracle in his own person? Now if his disciples rest their views on a few experiments of the homœopoietic powers of this and other medicines, they are false to themselves and their art—if they pretend that these experiments have been often repeated and with success, you all know and they themselves know, that they are not to be trusted in statistics or any thing else.

Dr. Johnson said—"if there are men with tails, let them catch a *homo caudatus:* if the original of Ossian exist, why not produce it?" In like manner, if these homœopathic diseases are so easily excited, why not show them? This whole College would rise at midnight and walk some one mile and some twenty, for such a sight—in comparison with which, a dozen new planets or the meteoric heavens of Nov. '34, would be nothing.

Hold, says the author of *young physic*, Fleischman and Henderson are honourable men. We were naming no one, but merely remembered that the heart of man, says the Bible, "is deceitful above all things;" that moreover all religious creeds acknowledge the very saints may fall from grace, at least long enough to publish homœopathic statistics.* Nor are patients themselves to be trusted: they

*Since reading this paper to the College, the 44th, No. of Dr. Forbes' Review has arrived containing a letter from Dr. Balfour, who observed during a close attendance of three months on Fleischman's hospital, much dishonesty on the subject of his *statistics*. Which

have entered on a career of folly of which human nature is ever unwilling to be convicted, therefore in defending the new art, they think to defend themselves. They ought to be reminded of the old proverb—that of all liars, quacks are the greatest except their patients. Even Dr. Forbes has to acknowledge that experiments made in the German hospitals and in private practice, as far as they go, are unfavourable to homœopathia.

Dr. Forbes concludes his review with giving what he calls *Cogitanda, excogitanda, agenda*—a title which echoes the oracular manner of Bacon: his next paper ought to have been headed *Johannes Forbes sic cogitavit.* This ominous chapter results in twenty propositions for the regeneration of the science or its total metamorphosis into a Bantling to be rocked in the cradle by an old man. And what are the propositions, cries the frightened Perturbater? for such a title from a man of such powers, from one who deposes the old dynasty and proposes his own progeny to reign in its stead, is enough to alarm the stoughtest heart. What then are the propositions? most admirable, says the devotee of nature—most admirable, echoes the delighted Perturbater—not one to which every man would not subscribe, say all men; nor is there a notion therein which has not been flowing from the tongues and pens of physicians for ages, though certainly they never flowed with more clearness and amenity. When read hastily, tis true, they make an impression in favour of a *young* and feeble physic, but a second perusal will detect an abundance of adverbs and adjectives which turn the whole in favour of the old science.

Such is the end of all Dr. Forbes' declamation which justly merits a volume of severe reprehension. We shall now quote from an eminent Physiological physician who is a powerful advocate of nature, and you will see that he, like Dr. F's propositions, does really grant all the perturbation that the prince of perturbaters could require. "The active or disturbing plan of treatment should be followed with a wise reserve. Its energies are not to be displayed on every occasion, but brought to bear on those cases only in which the implication of most of the important organs in the diseased action, the denaturalization of their functions, the suspension of the natural secretions—leave few healthy organs to resist diseased organs, and of the sympathies of healthy actions to counteract those of morbid actions, and consequently no rational expectation can be entertained that the system is capable of its own protection. It is under such circumstances that active medicine is to be adopted, and the aid it brings to nature oppressed and sinking in the struggle, often ensures a victory when it would have been doubtful or when defeat without its aid, was inevitable." Now it would seem that if

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is the most probable—that these statistics are true? or—that they are either deceiving you or are deceived themselves?

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nature can be so often assisted in these deplorable and hopeless cases, she can much more certainly be assisted in the milder and even the mildest; that consequently, there are very few patients who ought to be left to her sickening vagaries.

The same author says "the treatment by expectation was that of the philosophic Greek sects and was that recommended by Hippocrates." We highly commend those honest Greeks; they knew nothing, they did nothing, and herein they showed much practical wisdom. Thus Homer and Celsus say that the grandsons of Apollo treated wounds only, believing diseases to come from the Gods. Now these are the first *expecting* physicians of whom there is any report; they pretended that diseases came from Heaven because they knew not what to do. Doubtless Alberti, Stahl, Camper and others, often found nature better than *their* perturbation; hence they looked upon their *young physic* as in the condition of David's servants, whom he commanded to tarry till their beards might grow. But now that *old physic* has attained a beard, we strongly recommend him to act in a manner becoming his age and wisdom.

Far from us be the folly, to pretend that physicians are wanting who pour in too many drugs; all we desire to say is, that the science as it now stands, does not inculcate a rash and perturbing medication, and that poor Dr. Forbes might have been spared much of his grief (for he says he does really grieve) had he witnessed the practice of many unpretending rustic physicians of America, even when paid for their drugs. But why require infallibility from the whole race of physicians? or do *they* particularly incur the imputation of this unfortunate *too much?* Do the preachers not sometimes preach too much, and the lawyers brawl too much—till the congregation or the jury become noddy? Do the merchants not sometimes borrow too much money, and do the banks not lend too much? Does the most skilful mariner not sometimes spread too much canvass? and are not the most prudent in every profession subject to occasional rashness and even folly? But let the professors in this city who teach nearly a thousand pupils annually, answer for themselves; let them consider whether they can say with Dr. Forbes that in medicine, "*things have arrived at such a pitch that they cannot be worse;*" let them say whether they teach a perturbing practice in which nature steps in and rescues the patient; let us all consider, how we should stare and wonder and be confounded, were any old physician respectable for talents and learning, to set up a school amongst us and declaim against his brethren, as Dr. Forbes has done in his unfortunate Review.

He has shown a fair specimen of the ranting among nature's physicians, and like them, his paper is calculated to do infinite mischief; they all tend to unsettle the public mind and render it suspicious of Medicine; they greatly favour the homœopath, for if nature is all powerful, the people will think themselves as safe under infinitessi-

mal doses, as under those nauseous drugs which are weighed by drachms and ounces; they are calculated to render patients very slow in their application for aid, trusting to nature till their cases are hopeless; and those who have yet faith in drugs will run to the quack rather than to the Doctor who is always crying—nature, nature—but to the poor apothecary—"get thee behind me Satan;" they are calculated to discourage the younger members of the profession: a middle aged physician of talents, said to me when a student, that one half of all that physicians do is useless; this weighed heavy on the heart, for I did not reflect upon what he had previously said, that the first fifteen years of his medical life had been spent in such a manner that he had better been asleep.

There is another serious light in which this practice may be viewed. While we concede the highest sense of integrity and honour to those declaimers whom we have personally known, it might be well to consider, whether a pretended faith in a lenient practice, may not be used as a means of acquiring popular favour. An old physician who is favourably known, might make a sudden ascent to a large city, and there by declaiming and writing against all established science but in favour of a reformed system, he might justly hope, in the mercantile phrase, for a share of patronage: for as Dr. Rush says, "the death of a patient under the ill-directed operations of nature or of what is called lenient and safe medicine, seldom injures the reputation of a physician." The above is by no means a harsh suspicion thrown out without consideration; human nature is the same among every people; Lady Mary Wortely says, that in all her travels, she had found only men and women.

But to return to the subject from which the painful "perturbings" of *Young Physic* have too long detained us, let us inquire—what is nature in the cure of disease. The greater number of physicians from Hippocrates to Cullen, considered that disease itself was the curative effort of nature, "exciting such motions, says Cullen as are suited to obviate the efforts of the noxious power." But let us relieve nature of this opprobrium, and consider under what other form she can be ascertained as a vis medicatrix, since her friends will not concede, that she it is who stirs up such curative commotions as often end in death.

With the sincerest belief in the spirituality of the soul, we should be glad to define curative nature as the mere action and reaction of organized matter. Our opponents will no doubt require, that we admit a conservative agency. Certainly we shall, if the ascertained functions can be called by this name; but so far as human knowledge goes, nature does not exert a single function for the removal of sickness which she is not constantly exerting when there is no sickness present. She may act with violence or with weakness and consequent irregularity, but there is no adventitious function for the relief of the suffering body. If the human system were a machine moved

by atmospheric air, without the least excretion or defecation in health, but in sickness were seen to puke, purge, perspire, and thus to glide gently into health, then indeed you might fancy with Van Helmont a preservative demon at the cardiac orifice. But as no new function is observed on the subsidence of disease, we are bound to observe the old law of evidence—*de non apparentibus et non existentibus eadem est ratio.* That the disease subsides spontaneously, is no proof of a vis medicatrix; as well might they suppose a vis sedatrix in the ocean that rocks itself to rest. The commotions in the body gradually subside when the causes are removed, or they produce certain effects or defects which if not mortal, absorption or nutrition will remove or replace.

But does nature not act conservatively when she throws out small-pox, measles, and scarlatina? Certainly not, for this throwing out is truly a part of the disease and the less she throws out the better. But observe—if nature strike them in, the physician must quickly strike them out.

Do you not say that when customary evacuations are suppressed, nature effects a vicarious discharge! 'Tis true, but she does this in the most blundering manner, not by any specific exertion, for she carries this discharge more frequently to the lungs or the brain than out of the body.

In the crisis of fevers, in the critical days, in the sweats of an intermittent, there would seem to be some show of a vis medicatrix; but mark! these are all inherent in the diseases themselves which without them, could not exist in their present form. These crises, moreover, exhibit no function which is not apparent in health. It is vain to say that the assumption of periodicity is a specific effort, for this is full as often for the worse as for the better.

But they say, nature points to the methods of cure in many cases, by giving a salutary determination to morbid influences. This was one of Dr. Rush's favourite notions; yet to how few cases will this principle of cure apply! Are sweats to be promoted in hectic or typhous fever? When nature is relieving the inflamed membranes by pouring out serum into all the cells and cavities of the body, does the physician encourage the process? When she throws out a crop of small-pox, measles, or erysipelas, does he endeavor to drive out more? In dysentery, she points with unceasing importunity to the bowels, does the physician dash into the cure by purging? Thus turn over the whole catalogue of diseases and observe, in how few her determinations of morbosity are salutary and to be encouraged.

Many physicians have said, that a fever is often to be cured by different methods in different years, according to the indications of nature. Now this little enigma is easily solved, there is no need of a Sphynx:—certain symptoms will prevail in some years more than in others, requiring of course more or less of this or that remedy; yet we have seen the remittent through ten tremendous epidemics

wherein these indications were the very same in every year. Even when the disease fell on the bowels in form of dysentery, nearly the same method and remedies were required; for tho' nature pointed to the bowels, the doctrine of Sydenham pointed to the skin. And when in the subsequent winter, nature determined to the lungs in the form of bilious pneumonia, an expectoration however desirable as a coadjuvant, was not to be waited for or trusted. It is very certain that the determinations of nature are sometimes to be encouraged but more frequently they are to be counteracted: in plague, the buboes are to be promoted; while in scarlatina, the inflamed glands and fauces are to be repressed.

The remittent fever is often ushered in with a cholera morbus—does nature give any indications here? does the *archeus* cry aloud for tartar emetic, gamboge, colocynth? or for opium, brandy, caloric, and sinapisms? In this very fever, when the *servant of nature* has neglected to bleed, 't is very certain she often opens the capillaries of the bowels; but sad to relate, she never knows when to close them. Now suppose the physician arrive while the pulse is yet too strong, does he promote nature by some hot enemata or external stupes? or rather does he not do what he ought to have done at first--prevent nature by taking blood from the arm? Thus when the doctor does his duty, there is often but little for nature to do.

But the pious *servant of nature* cries out in alarm from the Amer. Jour.—" it seems never to enter into the thoughts of many physicians, that the all-wise Deity in forming man, the most complex and refined of mechanisms, should have left it without any inherent powers for its conservation." But experience teaches that the system is not conserved, that man is continually dying from birth to old age, and particularly in childhood when the anima medica would seem to be most needed, to supply the place of acquired prudence. The preservation of health and the attainment of longevity are in a great measure like morals, placed in the free agency of man, and he is made answerable for the abuse of such a prodigious and tremendous gift. He is created an active, intelligent, selfish being, capable of some cardinal virtues not attainable unless thro' labour and sorrow, sickness and death; it would therefore not be consistent either with his present or future happiness, to live in this world like the gods of the Epicureans, in a state of careless ease and apathetic supineness, with a good demon watching over his morals and health.

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There is another withering theory which has lately seized on the professional mind: *that quackery is more and more favoured by the people and science condemned.* This we believe to be the mere imagination of those sincere and benevolent minds, which have indulged in better hopes of humanity, than the present state of the world can afford. Great cities are the foster-mothers of many virtues and mul-

titudinous vices, the last increasing in a hideous ratio to the increase of population. Some of us knew this great city medically when it contained about one-third of its present number, and when we look back upon those quiet days of comparative innocence, ere the Swaims and the Hahnemans had tainted its gales, we may easily fancy that vice has indeed made giant strides. But there are as many physicians at present in proportion to the people and they are as fully employed; to presume that quacks would not also increase, would be the mere vision of some benevolent fanatic in medicine, for tho' the collective world has long been in a state of moral amelioration, that our own country is in this happy state, we should be glad to see proved. The various vices of venality have advanced in hideous array and quackery which is among the most venal, could not be expected to lag behind. But mark, how little it has infected the profession, how firm and incorruptible is our phalanx, how numerous are the soldiers of the true faith. Of the numerous students who annually seek this great metropolis of medicine, there is perhaps not one who does not come with an honest heart. But to suppose that the love of money may not corrupt some feeble minds, is more than you ought to expect of humanity; hence it must be acknowledged that a few of our people have abandoned their honour and gone to the quacks.

As to the people who seek aid of the various impostors, they merely render honour thereby to the medical profession. They know nothing of the various ratiocinations of science; they look upon the whole as mere transmitted experience; remedies, they have heard, are often discovered by chance which happeneth to all men; they have all heard of great cures performed by the profession, and referring these to drugs alone, they blindly seek aid from those who make the highest pretensions. If physicians could promise as audaciously as do the quacks, these traders in human life would almost cease to exist. It is a rule with many physicians to promise too little rather than too much; Dr. Rush used to say that it was safest to err by giving an unfavorable prognosis. Now this is the surest way of sending our patients to the quacks, for why should an ignorant public seek help from those who can promise none? A person inheriting consumption, is daily growing weaker and more anhelitous, he applies to us with all the horrors his just apprehensions can inflict; his daily visions and his nightly dreams are those of ancestors, brothers, sisters, dead of the disease too generally reputed by us to be incurable. We give him various advice while his hope is in drugs, but from these we give no hope, nor indeed from any thing else, unless from an impracticable voyage to a distant land—what should hinder such a patient, ignorant of every principle of medicine, from seeking aid of the quacks with whom hope so joyfully abounds?

It is an old saying that a sick man is never wise, and it might be

truly added that his friends are seldom wiser than himself; therefore, if a drowning man will catch at a straw, how much more will people demented by sickness and deprived by us of all hope, be caught by the promises of the impostor—all well supported by the testimonies of innkeepers, lawyers, and gossipping clergy? Hope is not only the last solace of the broken heart, but it is often the point on which vibrates the fatal balance, and not one depressing breath ought ever to breathe upon it. But it is safest, said Rush, to give an unfavourable prognosis—this we strongly question as a general rule. The contrary practice inspires hope and confidence, nor will a failure often injure the disappointed physician. He is in the condition of a general, and no great commander ever fills his people with doubts and fears, or was often called to an account for failures in noble undertakings.

In one respect the people do ample justice to science—they repose in it their first hope and their last. In the onset of sickness, the physician is called; when he has not fulfilled all reasonable hopes, the quack too often succeeds; when death impends, the quacks are dismissed and the physician is summoned by the penitent patient to wind up his case. This is the fate of many a man who had too much common sense, to employ a quack tailor or shoemaker to make his coat or his boots.

The extinction of quackery presupposes impossibilities—the suppression of vice and the change of folly into wisdom. It will live for ever; when it appears to die away in one form, it springs up in another; it transmigrates, as Pythagoras would say, but never finds a place in any honest breast. Let us be contented with our lot, assured that if our patients are sometimes allured by the promises of quackery when we promise nothing, they render an indirect homage to science. We heard a venerable bishop declare that he included within the fold of the mother church, all ignorant people of whatever denomination; in like manner, all those who repose their hope in medicine, we consider as honouring that profession which has alone given a character to the healing art.

We have been led into these reflections by the fact of an eminent professor having said, among many other desponding things, "that the people are against us." He was entirely mistaken; the people, as a whole, are neither for us nor against us; they are too selfish to think about physicians till sickness invade, and this only aggravates the inveterate vice. We neither receive nor expect favour from the people, we must stand in our own strength. They respect our profession as highly useful, precisely as they do the tanner and shoemaker who protect their feet from flints and frost. But for the physician, unless when an individual cherishes one as an old family servant, they have no particular regard when not impressed with some adventitious circumstances; nay, in one respect they have more deference for others, for while no one aspires to the knowledge of

common artizans, every one thinks himself qualified to converse on medicine. They have heard and seen so much, that they have become wise in their own eyes and bloated in self-estimation; in fact the people are nearly all quacks, and nothing but the lights of anatomy and physiology, will ever cure them of their disease, of the delightful *cacoethes* of prating they know not what on homœopathia, allopathia, and *young physic.*

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Another theory is still floating in the public mind which is partly true and therefore greatly abused--*that medicine is an uncertain science.* This imputation will never be removed, and therefore it becomes an imperative duty of the physician to consider, how far it is true, and thus be prepared to " give an account of the faith that is within him." We feel sadly incompetent to the subject, and can therefore only offer a few " words to the wise" and bid them remember, that it is their part, to profit by hints from whatever source, and even " to find sermons in stones."

We shall not treat this subject on abstract principles, as our ignorance of the causes of life; of the modus operandi of medicines; of the efficient, formal, and proximate causes of disease; of the ultimate analysis of medicines; the want of an infallible diagnosis; and other impossibilities which cavillers have adduced as *prognoscenda* to a successful practice. These are all nonentities to the human mind and must continue such for ever. Let those sophisters be told, that the science makes no such pretensions and entertains no such hopes; it only insists that the sick are infinitely safer in the hands of the physician than when left to nature or quacks. Nor can this be proved by reason, nor yet by that mockery of truth, the *abuse* of statistics; it is necessary to go into the chambers of sickness and pain, there to witness the triumphs of science as also the mal-practice both of nature and the quacks, " *oculis subjecta fidelibus.*" Physicians have become familiar to the blessings which medicine confers and are too apt to pass them with indifference; but witness the astonishment excited by them among barbarous nations to whom they are novelties; witness the trophies which every year brings to the temple of science; witness the success of the present medicine over that of two centuries ago. Could Sydenham return to the earth and appreciate the difference, how would he pour out his pious soul in gratitude to heaven!

But let us look through the vista of time and call up a vivid image of the chambers of sickness: do we not all see the success of a prompt and careful treatment? Do we not all equally see the direful effects of delay and of the vaunted trust in nature? Does no one see how easy is the cure of the epidemic fevers when called early, how long and difficult is the cure of those to whom you are called late? Behold the numerous victims of consumption and scro-

fula whom the timely use of iron and bark, pure air and exercise, might have saved to their friends. Pity the putrid victim of syphilis whom a little caustic, or, at the worst, a little mercury would have cured without the loss of a dinner. See a dozen of your neighbours with chronic ague, their faces bloodless and bloated, their livers obstructed, their spleen swelled, and wayward nature pouring out water into every cell—all which a pound of bark to each man, would have prevented or cured. But there would be no end to this honest rant were we disposed to pursue it.

When the vis medicatrix, the homœopath, or the conjurer, shall cure the inflamed meninges, when bleeding, purging, and ice shall no longer be found useful therein, then discourse of the uncertainty of medicine. Behold a patient in pneumonia, see how quickly he is relieved by bleeding and antimony: but why, says the sophister, *do you not involve his chest in ice as you did in cephalic inflammation?*—Here is a case of cephalalgia, the patient screaming with pain, see how certainly he will be relieved by the hottest fomentations to the head: *nay, bleed him*, says the sophister.—See a case of petechial fever with violent pain in the head, and here is a case of cynanche maligna, both inflammatory: *bleed them, bleed them.*—There are a dozen patients each sweating off his paroxysm of intermittent: *bleed them all*, says the sophister, *the face is red, the pulse too strong, and the skin hot.* Now can any one contemplate these cases and thousands yet more striking that might be adduced, and not acknowledge the certainty of medicine?

Diseases pass off by puking, purging, diuresis, and sweats—see how certainly these natural excretions are promoted by medicines, and observe how thoroughly physicians have learned, in what states of the system and of disease they are severally to be used, and how greatly they favour the natural salutary crisis. Is there a function in the body which we cannot excite or repress by appropriate medicine? and yet the old father of *young physic*, dandling his darling, sings out, that "*of a very large proportion of the drugs in common use, we are entirely ignorant of the action, or whether they have any action at all;*" and again, "*we have yet to learn the exact mode of action.*" It was very fortunate that in this lulaby, his love of truth put this canticle in the first person singular. What he means by the "*exact mode of action*," no human being can divine; one might suppose that the author had been wrapped in some metaphysical mystery; or had been, as the poet says, to gather clouds on Helicon. We know that all medicines do act, that they either specifically cure the disease—as bark, mercury, sulphur—or they are given to fulfill some indication that contributes to a favourable issue. Not one medicine which has not an apparent action; even when tart. emet. neither nauseates, purges, nor sweats, it is seen to annihilate fever, as clearly as the sun, moon, and stars are seen to give light. Meanwhile we have appropriate medicines to act on every known capacity of the

body—some adapted to irritability and others to sensibility, of which some are general and others specific; there are nervine stimulants and nervine sedatives—assafœtida excites the whole nervous system and belladonna benumbs the iris at the sugeon's will. Not to pursue this further, let us observe—that we ought to be thankful for what we have rather than murmur at what we have not; humbly wishing that *Young Physic* may realize all the hopes of his doating parent, and reveal to our children, more than twenty centuries have revealed to us.

But see with what certainty the surgeon directs his knife and how well founded are all his hopes and fears with respect to adhesion, suppuration, sphacelus, and all other accidents. Consider how chemistry supplies the physician with remedies, directs him with respect to incompatible medicines, reveals the causes of disease, and furnishes antedotes to numerous poisons.

But why all this troublesome apparatus? since Stahl assures us that of a thousand sick, not more than one will die even of small-pox or measles if left to nature; "a commentary he says on that most beautiful admonition of Seneca—*You do not die because you are sick, but because you live.*" Suppose it were a truth and not a monstrous falsehood, that only one in a thousand dies—is it nothing to escape blindness, phthisis, vomicæ, and many evils which these diseases entail? is it nothing to come out of the battle with broken bones and irreparable mutilation?

All you have said appears probable to you but not certain to me, says the mathematic, a physical reasoner, who demands demonstrations in medicine where they cannot obtain and where most happily, they are not necessary. In treating of what depends on measure and number, their measures and numbers must be absolute; the mariner who conducts his ship through dangerous seas by the aid of rigid mathematics, must adhere rigidly to his numbers; but in medicine, there are many ways to the haven of health and no two physicians will pursue them entirely alike. This fact contributes very greatly to the certainty of medicine, as an invading army which has many parallel roads, is safer than if urged into a single defile. The consequent perpetual exercise of the reasoning powers, moreover, greatly strengthens the mind and opens new ways of invention and certainty.

Much fault is found because theories vary, thus showing as they suppose, that medicine rests on hypotheses: this unfounded objection is in every one's mouth. But these theories are no part of the science, which is truly nothing else than a *catalogue raisonnée* of facts, and the practice thereof—nothing but a use of those facts directed by experience, reason, and analogy. When Dr. Darwin prescribed for a dysuria, he was governed by learned experience and not by his hypothesis of inverted lymphatics. Thus Sydenham's many little theories were totally lost in the shining light of experience; for, as

Celsus says, "it was after remedies were found that men began to reason about their mode of operating; they were not discovered by reason, but being discovered, the reason was sought."

Newton's four laws of philosophizing would contribute very greatly to the certainty of medicine, though it is only a portion of the first that is entirely applicable; that is, to assign no more causes than are known to exist. This excludes hypothetical theory altogether, and had physicians adopted it early, they would have saved themselves and their successors much trouble and opprobrium. Sydenham would have found no putridity in the blood, Boerhaave no acid or alkali, Cullen would not have built up a climax of hypotheses and capped it with a vis medicatrix, Brown would not most absurdly have divided all diseases into sthenic and asthenic. But a grand hypothesis which embraces numerous facts in one brilliant theory, is an enchanting vision, not easily broken up by the severest philosophy; and there are minds too strong or too slippery to be tied down by rules. When Newton had assumed attraction as a fact in nature and had expounded the solar system thereby, he offered and laboriously defended an hypothesis concerning attraction itself: here it was that the great man who had trod with a firm mathematical step, the orbits of the planets, first began to hobble about the earth on stilts. Hartley was not satisfied with the fact that motion conveyed sensation, but he must try to explain the quality of that motion by an hypothesis. Thus it is in philosophy as in medicine, facts being discovered the reason is sought, and if none is found, they obtrude an hypothesis; but this is no part of the philosophy itself, nor is a plausible theory concerning the operation of a medicine, any part of our science. Lavoisier's beautiful but hypothetical theory attracted the gaze and admiration of mankind, as the triumphal car of chemistry; and yet when exploded by Davy's battery, not one of all the facts which it bore along the *Via Sacra* of science was lost to the world.

That there is some uncertainty in medicine must ever be granted, but much of it will always be found in the mal-administration thereof. There is the wickedness and carelessness of nurses and obtruding friends, in addition to their mental debilities; there are many just imputations on the patient—he applies too late as tho' physic were a science of regeneration; he throws his medicine out of the window; he bewilders his physician with innumerable falsehoods; he is guilty of many irregularities equally fatal to life and the certainty of medicine. Nor can the physician always applaud his own career. There is not one who can say, that even thro' a single year, he has always administered the science as it really exists; there is not one who may not say with the great Lexicographer, "that he has sometimes fainted under a task compared to the labours of the anvil and the mine; that what is obvious is not always known and what is known is not always present; that sudden fits of inadvertency will

surprise vigilance, slight avocations will seduce attention, and casual eclipses of the mind will darken learning." Finally we must not require too much of the healing art. Dr. Rush used to anticipate the time when old age and accidents would prove the only outlets to human life. This was the wildest enthusiasm: it will never be conceded by Heaven that all men shall live to old age. It is necessary to the perfection of man as well as to the moral government of the world, that sickness and death should impend, like the sword of Damocles, over our frightened heads; hence mankind are made subject to innumerable casualties of sickness and violence. Our stamina or threads of life moreover are not all equally spun; they are necessarily breaking at various lengths; hence the life of man has been compared to that of the transient foliage. "Similar to a generation of leaves, is a generation of men," says the father of the epopee: Οἰηπερ φυλλων γενεη, τοιηδε και ανδρων—

> "Like changing leaves, the race of man is found,
> Now green in youth, now withering on the ground."

Omnia orta occidunt et aucta senescunt, says the historian Sallust, evidently taking his figurative word from the falling leaf.

> "Frail as the leaves that quiver on the sprays,
> Like them man perishes, like them decays."

Some are lost in the opening bud; not a few perish unexpectedly during a shining juvenescence; many fall off while glittering in the glories of the autumnal forest; and a very few persist thro' the winter, faithful emblem of old age too long protracted—of shivering, withered, Nestorian longevity. Such is the fate of man, such the decree of Heaven; "he cometh up and is cut down as a flower, he fleeth as it were a shadow and never continueth in one stay."

How vain then are many of the cavils at the certainty of medicine! Mankind will perish at every period from birth to old age, so long as the world shall last. Do you inquire then, why all these laborious energies to improve the healing art? the answer is plain: all experience has taught that much success is graciously permitted, for this very reason among others—that in the hopes and fears attending our curative efforts, are excited and widely diffused, some of the tenderest sympathies of the human heart. We shall therefore go on with the decrees of Heaven, and joining sentiment with the philosophical poet—we shall not refuse to anoint our eyes nor yet to ward off the knotted gout, because we cannot see with Lynceus and must ever despair of Glyco's limbs.

The subject of the prevailing Epidemic was introduced by Dr. Moore who inquired of the Fellows, what was the character of the autumnal fevers which had fallen under their observation this season,

and what portions of the city or liberties were most affected by these diseases?

Dr. JANNEY replied, that he had seen a number of cases of fever in the upper portions of Kensington and along the banks of the Delaware. He thought, however, that the disease was less rife this season in the North-western districts of the city, and along the banks of the Schuylkill in that direction, than it was last year. He had also seen several cases in his own neighborhood, (6th near Green) where the houses were compactly built, tho' there were open lots in the neighbourhood. These patients had not been out of the city—though he could not say whether or not they had walked out in the evening, in the vicinity of the open lots, or had been exposed to sources of malaria in the neighborhood.

Dr. HUSTON would like to know if any cases had originated in the dense portions of the city--all the cases of intermittent which he had seen this season except one could be traced to the country, and several came from the State of Delaware.

In the excepted case, the patient had not been out of town; the attack was not, however, distinctly marked. He thinks Dr. Janney's cases might be fairly attributed to the open ground near the residences of the persons affected. He believes that the central portions of the city proper have been entirely exempted from the disease.

Dr. EVANS has seen eight cases of fever of an intermittent type, between Second and Eighth Streets and Arch and Spruce Streets—all of these patients had been out of the city except one whose attack was light, and this patient had suffered from an attack last autumn.

Dr. PARRISH remarked, that an interesting question was involved in this inquiry, and that was whether it was possible for an intermittent or remittent fever to arise without exposure to the malarial influence? According to the generally received opinion of the profession such attacks could not be generated in the compactly built parts of a city. Many cases originate in the suburbs of cities, and the disease was now prevailing to a great extent in the outskirts of Philadelphia. Dr. P. had seen a severe case in a manufacturer residing in a newly built part of the liberties with open lots in the front, and in the rear of his residence. The family next door, he understood, were all sick with the same disease. There was no pond in either of these open lots, but a very abundant growth of the common Jamestown weed. The Doctor had seen a number of cases of a manageable form of intermittent fever in persons who had recently returned from the country.

Dr. MOORE has heard that fever was prevailing to an unusual extent in the South-western suburbs of the city. If it is less prevalent than usual in the North-western suburbs, as Dr. Janney seems to suppose, the fact is a curious one, especially as the reverse was the case last year.

Dr. Wilcocks one of the physicians of the Philadelphia Dispensary stated that 70 new cases of intermittent fever fell under his care in the first two weeks of September, as physician for the South-western District of the Dispensary. This district includes the streets between Broad and the river Schuylkill, and between Chesnut and South streets.

Dr. Wood, Vice President, remarked that there was another question of interest connected with the progress of these epidemics which might have a bearing on this discussion. It is believed by many that those peculiar causes, or states of the atmosphere, which produce malarial fevers upon high lands, do not exist at the same time on low flat lands, and hence that the latter situations are generally exempt from fever, when the former suffer. Dr. W. stated some facts in illustration of this position.

Dr. Huston has known epidemics to affect high and low-lands indiscriminately, this was the case in the years 1823 and '24, near Chester, when Dr. H. resided there. His own residence was on a high gravel bank, which had previously been exempt from the disease, but during these epidemics, while the fever was prevailing extensively upon the low-lands, he and all his family suffered. The same facts have been observed in some of the epidemics in the vicinity of Philadelphia.

Dr. Wood was aware, that the rule was not universal, though it held good in some cases. In the low-lands around Salem, N. Jersey, fevers formerly prevailed to a great extent, but they disappeared for years, while the high-lands nearer Philadelphia were the seats of the disease.

Dr. Gibbons has seen three cases of intermittent fever originating in the South-eastern part of the city; one was a patient who had an attack early in the autumn, another was a watchman who was much exposed, and another a colored man. In Delaware, where he formerly resided, a great revolution had occurred in the epidemics of autumnal fevers. For the past three years malarial fevers have been on the increase every year. He had been informed from an authentic source, that there was more fever in and about the city of Wilmington this season, than had been known since 1827. The South-eastern section of that city, which sloped towards the river Delaware, was the great seat of autumnal fever in the early part of the present century, and was so unhealthy as almost to be abandoned. The disease was generally confined to this locality and the surrounding low-lands about the Christine creek, until the epidemics of 1823 and '24, when it leaped over its old barriers and encroached upon the highlands. It prevailed in this way for several successive years, while some of the sections of the low-lands, hitherto affected, were exempt. From 1827, until within the last two or three years, no epidemics occurred in either situations; places formerly very sickly became entirely healthy, no case of fever occurring during the au-

tumnal months; now, however, there is a tendency to a return of disease in these localities.

In reply to a query of Dr. Wood, in reference to the prevailing winds during the seasons which were exempt, Dr. G. could not state any fact upon this point. He believed, however, that very accurate meteorological tables kept by his father, during a long series of years, furnished no light upon the subject, and that the cause of these changes were dependant upon some unknown and heretofore inappreciable agencies.

Dr. G. would like to inquire of the Fellows what they had found most effectual in curing habitual intermittents. He had found no difficulty in arresting them temporarily by the preparations of bark; but he had often been baffled in inducing a permanent change of constitution, and breaking up the tendency to relapse. In these chronic cases he has tried alteratives, Fowler's solution, preparations of opium, &c.; in some instances, however, where he believed the disease to be eradicated, it would still return to his great disappointment.

Dr. Jackson remarked, that he did not believe there was any thing on the face of the earth, wanting to cure intermittents but bark or quinine. During a practice of many years, at Northumberland, in which he had passed through eight or ten epidemics of fever, and had seen a great deal of the disease, he always relied upon bark in the intermittent form of fever, with confidence.

In those cases where it has appeared to fail in arresting the paroxysms permanently, he has attributed it to a want of attention on the part of the patient in keeping up the use of the remedy. He well remembered a man who came to him seeking advice for a chronic intermittent of a year's continuance; he told him to purchase a pound of bark and take a tablespoonful twice a day at first, and as the disease was relieved, moderate the dose, but to continue the use of the article for six months. The man persevered, and was permanently cured, never having had the disease afterward, in a period of twenty-five years, during which he was known to Dr. Jackson. The Doctor also expressed his great confidence in the preparations of bark as a prophylactic. During very sickly seasons, when he was constantly exposed to the causes of fever, it was his practice to take bark daily, and he believes, it was the means of keeping him well. He has often taken ℥ss. of bark before starting on a journey through a malarial district, and continued the practice during the epidemic season, with no other effect upon his constitution than to invigorate it, and to protect him from the fever. In those seasons in which he neglected these precautions, or put off the period of using the bark until after frequent exposures, he had suffered from an attack. Dr. Jackson doubts the opinion stated by some authors that the susceptibility to the influence of bark is destroyed by repetition. In confirmation of the facts stated by some of the Fellows in regard to the

localities of epidemics in different years, Dr. Jackson stated that he had known the town of Sunbury to be the seat of an epidemic in the autumn of one year, while Northumberland, only a mile and a half distant, would be exempt, and vice versa.

Dr. Evans remarked in reference to the cure of chronic intermittents, that his experience accorded with that of Dr. Gibbons, that tho' bark and quinine were generally to be relied on, he had seen cases which resisted them; the same reports came from the physicians of Ireland. He had recently made some trials with Donovan's solution as a substitute for bark in these cases, and had been much pleased with its effects, though his experience was too limited to recommend it confidently. The dose in which it is given is ten or twelve drops three times daily.

Dr. Huston has also experienced failures in curing intermittents with bark. He has found it impossible to induce some patients to take the medicine, and oftentimes the stomach rejects it. Dr. H. thinks also that the system becomes habituated to its influence, according to the general rule which governs the action of medicine upon the system.

In cases where bark or quinine fail alone, they have been known to succeed in combination with other medicines; as for instance with serpentaria, piperine, &c. Large doses of opium just before the expected paroxysm will invariably check its formation. Dr. H. referred to Dr. Graves' late paper in the Dublin Quarterly Journal of Medicine, which had been copied into the Medical Examiner, for some interesting views upon the treatment of intermittents. With regard to breaking up the habit of return, Dr. H. would strongly recommend the cold shower bath, he considers it superior to any tonic medicine.

Stated Meeting, November 3d, 1846.

Dr. Hewson, President, in the chair.

Present, nineteen members.

Richard D. Arnold, of Savannah, Georgia, was elected an associate.

A communication was received from Dr. S. C. Warren, of Boston, Mass., acknowledging the receipt of the notice of his election as an associate.

A communication was received from the Secretary of the American Philosophical Society, acknowledging the receipt of the twelfth number of the Summary of the Transactions of the College.

The committee to whom was referred the subject of charges for professional services rendered under the circumstances stated in Chap. x. Sec. ii. Paragraphs x. and xi. of the By-Laws, reported a rule for the conduct of physicians in such cases, which, in conformity with the requirements of the Constitution, was laid upon the table until the next meeting of the College.

Messrs. Barrington and Haswell presented, through Dr. Bell, a copy of a Practical Treatise on the Diseases of Children, by James Milman Coley, M. D. for the Library of the College.

The Committee of Publication reported that they had had bound one hundred and eleven copies of the first volume of the Summary of Transactions, and, provided the College approved, they had resolved, after reserving five copies for the College Library, and a few copies for presentation, to place the remainder in the charge of a bookseller for sale, at $1.25 per copy.

The report of the committee was approved and the resolution in relation to the disposal of the remaining copies of the first volume of the Summary of Transactions sanctioned.

The use of the chamber of the College was granted to the Philadelphia Medical Society, to hold a special meeting on Saturday evening next.

REPORTS ON

VACCINATION AND VARIOLOUS EPIDEMIC.

The committee on the subject of vaccination &c., stated that they were prepared to make a report. By a resolution of the College of February 3, 1846, it was directed that the committee on the protective powers of vaccination, and that on the varioloid epidemic should act in conjunction; but upon an examination of the materials collected by each, it was found impracticable to present these in one report; the two committees, therefore, requested permission to report separately, which permission was granted.

The report of the committee on the Protective Powers of Vaccination was then presented as follows:

In April, 1842, the undersigned were appointed by the College, a committee to investigate the protective powers of vaccination; the phenomena resulting when those who have been already vaccinated are again subjected to the disease, and the subject of re-vaccination

generally. Various obstacles, beyond their control, prevented their performing, at an earlier period, the task submitted to them, in a manner that would have proved at all commensurate with its importance; they have, however, been enabled, at length, to bring their labours to a close, the result of which is here submitted.

The first object embraced in the resolution, under which the committee was appointed, is one of acknowledged interest; it refers to the protective powers of vaccination.

The most obvious and conclusive mode of determining the degree of protection imparted by vaccination against the influence of small-pox, is to inoculate, with variolous matter, the persons who have been previously vaccinated.

At the close of 1801, the first successful efforts were made at vaccination in this city. In the early periods of this practice, until the year 1812, every mean was employed which, at the time, was deemed best calculated to determine whether the process of vaccination would afford full protection against the small-pox. The first step generally taken, after having observed the genuine character of the vaccine pock, was to insert a portion of variolous matter, and to note its progress. Where due attention had been paid to the selection and insertion of this matter, a small red pimple appeared about the third day. On the fifth day this was converted into a purulent crust, surrounded by inflammation, generally of no great extent, which, after this period, began to fade, and was rarely perceptible beyond the eighth day; it left no trace beyond the tenth. The full and distinctive character of the variolous pock was not observed on these occasions. The persons thus treated were not affected with fever, or any general derangement of the system, nor was any eruption observed on the skin. The persons having been submitted to this test, were next exposed to the small-pox in the most direct manner, often by placing them in the beds with those labouring under the disease, even in its most virulent form. A like immunity attended this experiment.

From repeated observations thus conducted, observing that no instance of small-pox had been communicated to those on whom the operation of vaccination had been duly performed, the profession ventured, in 1803, to announce the process as one affording equal protection with variolous inoculation.

The reasons for preferring the process of vaccination to that of variolous inoculation could not fail to be appreciated, and were strongly urged in the circulars issued for the public information.

Under the most favourable circumstances, and where every attention had been paid to insure success, many of those who had been inoculated for the small-pox were known to have fallen victims to the disease. The estimate most generally received, and founded on a large experience was, that one in four hundred of the inoculated fell victims to the process; some practitioners were

stated to have been more fortunate, and to have lost not more than one in a thousand. On the other hand, of the thousands that had been vaccinated not a death had been recorded, which could be imputed to this process. The age of the individual, or the physical condition of the other members of the family, constituted no objection to the operation, as the cow-pock could be communicated by the direct application of the virus only; while in the instance of the small-pox, the effluvia emanating from the infected, were known to impart the disease to the unprotected, and under circumstances when it was likely to prove fatal. In addition to the loss of life, caused by the small-pox, even when the result of inoculation, the mutilations which were so often consequent, even when life was preserved, must have been familiar to every one acquainted with the disease, whether casually received or by inoculation.

Unfortunately, the reputation of the Jennerian process has been materially affected by the ignorance of the persons by whom the operation has been frequently undertaken, and by the want of attention on the part of some of the profession in visiting at the proper periods, and recording the phenomena observed. The period when the areola may be expected ought never to be neglected.—The evidence that may be obtained from such circumstantial records, will tend to dispel many of the idle reports so freely circulated to the disparagement of vaccination. By consulting such recorded documents, it has been clearly ascertained that the majority of the cases of small-pox ascribed to the failure of the protective process were, in reality, owing to the imperfect manner in which the operation had been conducted. There is abundant evidence recorded in medical books, of persons having suffered from small-pox more than once; where such a peculiarity of constitution exists, it cannot be a matter of surprise that the disease should be occasionally observed after vaccination, even in cases where the genuine and perfect character of the vaccine process has been fully developed. A careful examination of these histories does not exhibit any appreciable difference in the proportional number of such cases, whether after small-pox or after vaccination.

By an act of the Legislature, passed in 1811, to communicate the infection of small-pox by inoculation, or otherwise, has been prohibited, under certain pecuniary penalties. For the four succeeding years, the disease is not recorded in the bills of mortality; and the mode of most conclusively testing the protective powers of vaccination necessarily ceased. And hence the profession have, since then, been deprived of a measure so intimately connected with the inquiries to which the attention of your committee has been directed.

Touching this very important question, it must be acknowledged that the documents at command are but few; nevertheless those that have been preserved, afford the evidence that, after the lapse of three years, the vaccinated were found no longer susceptible of

small-pox by inoculation. Among the persons thus treated, it has been ascertained that an infant, vaccinated within the month, resisted the variolous infection after an interval of the same number of years.

For the want of that full and comprehensive information which our more immediate resources fail to afford, it may prove acceptable if we here present the experiments made by that distinguished and accurate observer, Biot:

"In August, 1826, a number of boys, between the ages of twelve and sixteen years, were inoculated in four places with small-pox virus by Dr. Biot, one of the physicians to the hospital St. Louis, at Paris. A part of these had been vaccinated, and part had never been protected from the small-pox. In those who had been vaccinated, the insertion of the variolous virus had no other effect than to produce a slight inflammation for two or three days at the points where the matter was introduced. Those who had never been protected were affected differently, and contracted the variolous disease."

In this stage of the inquiry, it appears not irrelevant to notice the diminished mortally from small-pox, as observed in this city, since the introduction of vaccination. Wherever that disease has appeared, it has been viewed as among the severest scourges inflicted on mankind, and the most appalling apprehensions have been entertained by every community which it has visited. The sufferings of those affected with this malady have at all times awakened the most painful and anxious feelings in the friends and connections, and called forth the assiduous and unremitting care of the attendants and those administering to the sick. In seasons of epidemic small-pox, the mortality has been observed to be great. In 1721–22, in the town of Boston, five thousand seven hundred and fifty-nine persons were affected with the disease, of whom eight hundred and forty-four came to an untimely death, as publicly announced by the municipal authority of that city. This was a fearful mortality, particularly when we advert to the number of persons inhabiting Boston at that period. In the succeeding year, 1722, the census was taken, indicating a population of ten thousand five hundred and sixty seven; if, to this, there be added the number who died of small-pox, eight hundred and forty-four, the sum will be eleven thousand four hundred and eleven, as the total population previous to the ravages of the small-pox having commenced. One half of the inhabitants of the city were affected with the disease. Of those, between one-sixth and one-seventh came to an untimely death, and the city lost nearly one-thirteenth of its population.—*Zabdial Boylston, on Small-pox, p.* 33.

Of those who survived the loathsome disease, many, from the hideous aspect and mutilations caused by the disease, continued through life, the objects of commiseration, and too often of disgust.

Laws have been enacted, and rigid quarantines enforced, with the view of preventing the introduction and spreading of the small-

pox. In small communities, having little intercourse with other portions of the world, these efforts have proved successful for a season; but the temporary immunity thus enjoyed has only rendered the subsequent ravages of the disease the more disastrous. The nations engaged in commerce soon experienced the futility of every attempt to insure exemption from the disease; for though the infected were secluded, and denied all intercourse with those deemed liable to the disease, the poison was found to be frequently conveyed by means of the clothing, and articles taken from the chamber of the sick. For successive ages, the pestilence was submitted to as an inevitable evil, and allowed to extend its baneful influence, annually destroying large portions of the inhabitants of the earth, and in some instances depopulating whole districts.

The deaths from casual small-pox have varied, from circumstances not in our power to appreciate. The character of the seasons, the peculiarity of position, and the nature of the intercourse between the infected and those liable to take the disease, have had their influence in determining the malignity and mortality observable in different years.

The materials having relation to the medical statistics of Philadelphia, that can be gleaned from its early history, are extremely scanty and defective. It is only within the present century, and for the period of barely forty years, that any reports of the deaths have been publicly made. Prior to this period the records of the interments were confined to particular religious societies, necessarily difficult of access, and, generally, ill adapted to the present purpose. Though restricted to a narrow sphere, and not embracing the entire population comprehended within the city and districts, the registers kept at the Dispensary, afford a document which may constitute a proper basis to found the estimate of the advantages gained by vaccination. From the foundation of the institution to the close of 1801, including a period of sixteen years, when variolous inoculation was considered as the only protective process available against casual small-pox, fifty-one persons are stated to have died of this disease, while the entire number of deaths, from various diseases, were seven hundred and one, establishing the proportion to be seventy-three in one thousand, which accords with the most favourable estimates made in Europe, and will hardly be excepted against by those who are the least favorable to vaccination.

In 1807, by an act of the Legislature of the State, every death within the city and districts, must be reported to the Board of Health, the certificate expressing the disease of which the person has died. From this source, clear and positive evidence may be obtained. From the annual reports during the period of four years, variolous inoculation still being permitted, it appears that the deaths from various diseases amounted to ten thousand seven hundred and forty-four, of which number, four hundred and twenty-nine were from

small-pox. This affords the evidence of a considerable reduction in the proportional mortality from this disease, it being as forty in the thousand; during a period when vaccination had been practised and institutions established for its dissemination.

Since 1811, variolous inoculation has been prohibited by law. During the four succeeding years, not a death from small-pox was recorded. In 1816, there was a great influx of foreigners, particularly from the British dominions in Europe; by these persons the disease was introduced into this city, and proved fatal in that year to no less than ninety-seven persons. It was accompanied with a papular eruption, resembling, in many particulars, mild variola--affecting some of those who were believed to have been protected from small-pox by having previously undergone what was supposed to be successful vaccination; of these, no death is recorded that has come to our knowledge. In 1820, 21, 22, the city again enjoyed an exemption from this malady. This assertion is founded on the fact of no deaths from small-pox, in these years, having been reported by the Board of Health. In 1823, 24, the pestilence again afflicted our city, and the mortality from this source amounted to four hundred and eighty-four.* The fact that a large number of those who had been previously vaccinated with the greatest care, as well as many of those who had previously passed through small-pox by inoculation or otherwise, were attacked during this epidemic with a modified form of small-pox, created considerable alarm in the public mind, and directed anew the attention of the profession to an investigation of the amount of protection afforded by the vaccine disease. Upon the recurrence of small-pox in 1827, the Medical Society of Philadelphia appointed a committee to collect and report to the society all the facts within their reach, in relation to this important subject. The committee immediately addressed a circular to the physicians of the city and county, containing a series of interogatories calculated to elicit information in relation to the protective powers of vaccination. The report of this committee, embracing the facts collected by them, was made to the society in 1828, and was of such a character as to renew the confidence of the profession in the protective powers of the vaccine infection.† Notwithstanding, it was admitted that in many instances, those who had been previously vaccinated would be liable to become affected, during the prevalence of variola, with a modified, and, usually, mild form of small-pox, yet it was shown that the public are highly benefited by the practice of vaccination, which was, in every sense, to be preferred to inoculation, and hence, that humanity and sound policy imperiously demanded its continuance.

* For an account of the epidemic of 1823, 24, we refer to a very able paper by Drs. Mitchell and Bell, in the North American Medical and Surgical Journ. vol. ii. p. 27 et seq.

† For a copy of this report, see North American Medical and Surgical Journal, vol. v. page 400.

In succeeding years, with occasional mitigations, Philadelphia has suffered more or less from the disease. Taking the whole period since variolous inoculation was prohibited, the mortality from all sources has amounted to one hundred and forty-three thousand and seventeen, of this number, two thousand four hundred and ninety-seven are referred to small-pox; by which, it will be perceived that the proportional mortality has been reduced to eighteen in the thousand.

We have thus endeavoured to exhibit the degree of protection against small-pox afforded by the process of vaccination. The evidence adduced does not depend on individual experience, but rests on the broad basis of the public records, into which no undue bias can have entered.

It must be conceded, that the anticipations of the warm friends for vaccination, that this process would lead to the extirpation of the small-pox, have not been accomplished. In making this concession, the question necessarily arises, whether the requisite precautions for preventing the intercourse of those affected with small-pox, and those still susceptible of the disease have been duly enforced. The remarks of one who took a lively interest in arresting the progress of this loathsome malady, appear to be particularly pertinent, and to deserve the earnest consideration of every individual desirous of removing from the community this dreadful scourge. The words of Dr. Haygarth are, "the discovery of vaccine inoculation by Dr. Jenner is the most fortunate and beneficent improvement that medical science ever accomplished. It does not, however, preclude the necessity of investigating the nature of the variolous poison, and of considering by what regulations its propagation may be prevented. In order to secure the unthinking multitude from this destructive pestilence, measures to prevent the casual *small-pox* should every where accompany vaccine inoculation, without such protecting care by the wise and humane part of society, this mortal malady would, for ages, lurk unheard of and unsuspected, to the annual destruction of many thousands. No town, no village, not even a single solitary house would enjoy perfect safety from danger."

The foregoing, your committee beg leave to present, as a solution of the first question submitted to them by the College.

The occurrence, year after year, of the small-pox in the city of Philadelphia, and in other communities, and the frequency with which those who had been vaccinated were attacked with a more or less severe, though generally modified form of the disease, induced many to suppose that the protective power of the vaccine infection was only temporary. The question as to the necessity of re-vaccination now arose, but whilst few practised it, many condemned it as useless, and calculated to weaken public confidence in the protective powers of vaccination. Others, however, maintained

that, as there was no certain criterion by which the protective powers of the primary infection could be established with absolute certainty, re-vaccination was necessary in all cases in order to test the efficacy of the first operation. This opinion very naturally obtained importance from the fact, that few cases of modified small-pox were known to have occurred after a second vaccination, provided the insertion of the vaccine virus produced an action sufficient to prove that it had been taken up by the absorbents; also, from the disease being observed, in numerous instances, to be arrested in families, and in neighbourhoods, where those already reputed to be vaccinated were again subjected to the operation.

When vaccination has been repeated in those who have been previously subjected to the disease, it is found to produce a local affection, marked by very different degrees of intensity. In some, slight inflammation occurs on the second or third day, and then fades away. In others, various degrees of inflammation manifest themselves, followed by a pock or pustule, terminating in a brown or yellow crust, whilst, very rarely, a distinct, regular areola is produced, or the other phenomena of the genuine disease, as will fully appear from the table here annexed.

The subject of repeated vaccination has engaged a large field of inquiry in different parts of Europe; a very full abstract of the results of which, will be found in the work of Dr. Condie on the Diseases of Children, page 458.

The second question, therefore, submitted to your committee, was to determine the phenomena resulting when those who have been already vaccinated are again subjected to the disease, and the necessity and policy of re-vaccination. It is to the first portion of this question that the committee have been obliged, necessarily to confine their attention. It must be very evident that to test fully the necessity or propriety of re-vaccination, would either require that after large communities shall have been a second time subjected to vaccination, time be allowed in order that they may be repeatedly subjected to the influence of variolous contagion, during the epidemical visitations of small-pox, or that the direct test be resorted to of inoculating with small-pox those who have been successfully vaccinated, at different periods subsequent to the primary operation, as well as after a secondary operation, and carefully noting the comparative immunity from the impression of the variolous poison exhibited by each class of patients.

In order to obtain as wide a field of observation as was in the power of your committee they applied to the comptrollers of the public schools, soon after their appointment, for the privilege of vaccinating the scholars whose parents would consent to the operation being performed; whether they had been previously vaccinated or not: in order to ascertain the degree of impression that would be

made in each case by a repetition of the operation and with a view of watching hereafter the effect or influence it may have in preventing the occurrence of small-pox in the subjects of our experiments, should an epidemic of that disease again appear amongst us. But the comptrollers did not at that time consent to our request, and the investigation of the subject had to be postponed. In the early part of the present year, small-pox again made its appearance and excited considerable uneasiness in the minds of the public. Your committee entertaining the opinion that the period was propitious for a renewal of their application to the comptrollers, accordingly did so, and their consent was promptly given. Circulars were then sent to the parents of the children, attending several of the schools, requesting their permission, which was in most cases readily granted, and every facility was offered to carry into effect the object your committee had in view.

The operation was performed in nine hundred and thirty-one cases; six hundred and thirty-five of whom took on various grades of action; many of these had been vaccinated three, four, and five times before, and stood in relation to small-pox, chicken-pox, and varioloid as stated in the following account:—

Nine hundred and thirty-five persons reputed to have been protected by previous vaccination, having distinct cicatrices on the arm, or by having passed through the small-pox, were subjected to the action of the vaccine virus.

50 did not appear on the days appointed for examination.
294 exhibited no signs of inflammation from the process.
52 of these were reputed to have been previously vaccinated twice.
6 " " " three times.
1 " " " four times.
14 " to have had the small-pox.
36 " " varioloid.
72 " " chicken-pox.

76 had various degrees of inflammation on the fourth day, which had faded before the eighth day.
15 of these were reported to have been previously vaccinated twice.
2 " to have had the small-pox.
2 " " " varioloid.
26 " " " chicken-pox.

181 had inflammation more or less severe, accompanied by a yellow or purulent crust, on the eighth day.
30 of these were reported to have been previously vaccinated twice.
11 " " " three times.
2 " " " four times.
1 " " " seven times.
9 " to have had the small-pox.
7 " " " varioloid.
50 " " " chicken-pox.

95 had very diffusive inflammation, the pustule still moist on the 8th day.
10 of these were reported to have been previously vaccinated twice.
1 " " " three times.
1 " " " four times.
2 " to have had the small-pox.
4 " " varioloid.
23 " " chicken-pox.

179 exhibited more or less inflammation and a brown crust on the 8th day.
10 of these were reported to have been previously vaccinated twice.
4 " " " three times.
1 " " " seven times.
8 " to have had the small-pox.
7 " " varioloid.
49 " " chicken-pox.

57 had a pock with various degrees of inflammation; diffused and irregular in its margin on the 8th day.
2 of these were reported to have had the small-pox.
15 " " chicken-pox.
3, viz.: a boy and two girls, exhibited a well defined pock and the areola characteristic of the perfect vaccine impression as observed on the 8th day. They are stated not to have been affected with the small-pox, varioloid, or chicken-pox.

From the foregoing observations, as well as from those derived from previous practice, your committee are justified in the conclusion, 1st. that vaccination is the best preservative of human life now known against the contagion of small-pox; and although it has not answered the full expectations of its more sanguine advocates by protecting the system in all instances against at least a modified form of variola, which is the case with small-pox itself, nevertheless, life is very generally protected by it, and humanity and sound practice imperiously call for its continuance.

2ndly. Patients who have been once fully subjected to the influence of the vaccine infection, lose, in a great degree, their susceptibility to a second infection; the susceptibility diminishing still more at every subsequent vaccination.

3rdly. That portion of the community who have been once successfully vaccinated are in the great majority of cases fully protected from small-pox or varioloid.

4thly. A second vaccination does not insure the system in every instance against an attack of varioloid; neither does second vaccination prevent an impression being made on the system by a subsequent operation.

5thly. Upon the occurrence of small-pox in a family or neighborhood, it is all important that all individuals in regard to whom there

is any doubt or uncertainty as to the fact of their having been successfully vaccinated, should be subjected immediately to the operation, this being the most certain means of preventing the spread of the variolous contagion.

Your committee have not heard of a single instance of varioloid having occurred in any of the children of the public schools vaccinated by them, notwithstanding the epidemic was prevailing at the time and subsequently.

D. Francis Condie,
Thomas T. Hewson,
J. Wilson Moore. } *Committee.*

Accompanying this report there was presented a table containing the name and age of each individual re-vaccinated by the committee, the number of times each had been previously vaccinated; noting those who had been affected with small-pox, varioloid, or chicken-pox; and the appearance of the arm on the fourth and eighth and twelfth days, with remarks on the result of each case.

The report of the committee on the Varioloid Epidemic was next presented, as follows:—

The committee appointed in January, 1846, to collect facts in regard to the progress of the varioloid epidemic, the protective powers of vaccination, and collateral subjects, and to act in conjunction with the committee on re-vaccination, &c.,

Respectfully Report:—That soon after their appointment, they addressed a circular to the physicians of the city and county of Philadelphia, generally, requesting information upon the following points which they deemed essential to the inqury:—

First. As to the number of cases of varioloid or modified small-pox which had fallen under their notice.

Secondly. The proportion of those which had been vaccinated, inoculated, or had had small-pox in the natural way.

Thirdly. The number of deaths from varioloid.

Fourthly. The effects of vaccination upon the system.

Fifthly. As to the efficacy of re-vaccination in preventing the spread of varioloid, and the number of cases following re-vaccination.

Sixthly. As to the protective powers of primary vaccination, when performed at a very early age.

To the queries embracing these several propositions, the committee have been favoured with replies from fifty-one physicians; furnishing a variety of useful and interesting information upon the subjects submitted to them. Upon those questions which do not involve

a difference of opinion, the replies have been definite and satisfactory, but in answer to the fourth, fifth, and sixth queries, there is a degree of discrepancy, which has been somewhat embarrassing to your committee. In regard to the effects of re-vaccination especially, there appears to be a want of uniformity in the observations of careful and conscientious men, which would be unaccountable, did we not constantly observe, similar discrepancies in other kinds of evidence. Witnesses will describe the same scenes which they saw from the same point of view in entirely different colors; and, yet, be equally honest.

In medical testimony, an observer's description of the phenomena of a disease, is often colored by his theory in regard to its pathology; and even his recommendation of a remedy may be founded upon similar grounds. The defects incident to all human testimony must therefore necessarily embarrass an inquiry like the present, where the standard of what constitutes a perfect vaccine pock varies so essentially in the minds of different individuals.

The inquiry calls for the number of cases of re-vaccination which pursued the course, and presented the characteristic appearances of the genuine pock. Now, some physicians reject all cases as spurious, that do not exhibit certain specific characters, occurring at definite periods of time, and running a uniform course; while others include in their estimate of "perfect," a large number of cases which manifest so strong a resemblance to the original as to make the difference of no account in their minds. The varying shades of distinction between the genuine and spurious are not estimated by every practitioner with that accuracy which would impart certainty to his observations; nor is the estimate of what constitutes a perfect pock the same even amongst those whose investigations are the most minute and critical.

It would seem, therefore, essential to the solution of the question, presented in the query of your committee, to settle first upon a standard which should be considered as descriptive of the genuine pock; and even then the observations of physicians might differ in some degree. Without however entering upon the question, which is not within the province of the committee, we have only to proceed upon the materials before us, and we shall endeavour to present to the College an abstract or summary of the replies to each query, as they have been presented referring the Fellows to the letters themselves for more ample details than it would be possible to embrace in this report. The committee would suggest also that all these letters be placed on file, and that such portions of them as the College may direct, should be published.

The First Interrogatory is as follows:—How many cases of varioloid or modified small-pox, has fallen under your notice during the present epidemic, with the age and sex of each patient?

We have received reports of seven hundred and seventy-six cases,

which have been attended by the gentlemen who have answered. The age has not been stated in all the replies, but so far as we have returns, there are two hundred and fifty adults, and two hundred and fifty-five persons under twenty-one years of age; of the latter, eighty-two are reported as under ten years of age, and six under one year. Sex not sufficiently stated to be available.

Second Interrogatory, viz:—What portion of your varioloid cases had been vaccinated, inoculated, or had small-pox in the natural way?

Forty cases of varioloid are returned as having occurred after inoculation, or after an attack of small-pox; the remaining seven hundred and thirty-six occurred after reputed vaccination.

Third Interrogatory. Have you seen any deaths from small-pox or varioloid, after vaccination had been once satisfactorily performed, or after inoculation, or a previous attack of small-pox?

Twelve deaths have been reported under one or the other of the circumstances mentioned; but it will be observed that in several of these cases, there was doubt as to the genuineness of the primary vaccination, and in not a single case, had the vaccination been performed by the gentleman in attendance.

In several of the fatal cases, the disease was complicated with other affections. These cases are as follows:

One by Dr. Ashmead, in an adult, aged twenty-two years, who had been vaccinated, *and it was stated* to have been satisfactory; he died of confluent small-pox on the fifteenth day.

One death under the care of Dr. Helffenstein, of Kensington, in which the case was complicated with erysipelas and pneumonia; in this, Dr. H. feels confident that vaccination had been satisfactorily performed.

One by Dr. R. M. Huston; the patient was a student of medicine from North Carolina, "who was said to have been vaccinated when young," he had genuine unmodified small-pox, confluent in some parts, and died on the fifteenth day.

One by Dr. M. P. Hutchinson, "in a girl aged thirteen years, who had been vaccinated in infancy, and had had varioloid when four years old."

One by Dr. Isaac Remington, "in a pregnant female, aged twenty-six years, causing a premature delivery at seven months, and terminating fatally, during the febrile stage, and prior to the full development of the eruption." Dr. Remington further states, that he lost two patients under similar circumstances, one in 1833, and the other in 1841.

Two deaths are reported by Dr. Sargent, physician to the Small-Pox Hospital, both said to have been vaccinated in infancy; "one patient was a man thirty-five years old, whose health was impaired by dissipation and exposure as a seaman, and who came to the City Hospital from the Blockley Alms House. The other was a man,

twenty-four years of age, who, according to the statements of his friends, had been suffering for several months past with dyspepsia, produced by intermittent fever, of which he had had an attack early last fall.

One case by Dr. Francis West; that of a delicate anemic female (unmarried) aged seventeen years, born in England, and said by her mother to have been there successfully vaccinated when an infant. The eruption covered her whole body; it was tardy in appearing, and consisted in imperfectly formed vesicles, containing a dark serous fluid. The disease in this case was marked by great prostration of the system from the commencement, and the patient sank on the ninth day.

Two deaths are reported by Dr. Thomas B. Yardley; in both of these cases vaccination was said to have been satisfactorily performed; one was a woman aged twenty-eight years, and the other a man aged twenty-six years; other particulars are not stated by Dr. Yardley.

One death reported by Dr. Moore, in a young man twenty-three years of age, who had been vaccinated when a child, the history of the case not stated.

The Fourth Query is as follows. How many persons have been re-vaccinated by you? what effects have you observed to follow the operation? and in how many has a vesicle been produced which has pursued the course, and presented the characteristic appearances of the genuine vaccine pock?

Three thousand seven hundred and sixty-three cases of re-vaccination have been reported to the committee. The relative number of adults and children are stated in a few of the reports, but not with sufficient regularity to enable us to present the proportion with any degree of accuracy; the sex is rarely mentioned. The effects produced have varied from the slight irritation following the puncture of the skin, to severe erysipelatous inflammation of the whole arm, and from a small partially formed vesicle, to the fully developed pock.

In five hundred and forty-one cases, the characteristic appearances of the genuine pock are said to have been produced. In a large number, the appearances are considered spurious, but said to have approached very nearly to the genuine; while, in the remainder, every shade of inflammation, from the mildest to the most severe, is remarked.

These are the general results; but this interrogatory is so important to the progress of the inquiry, that the committee have deemed it advisable to present to the College the reports themselves, in the language of the respondents, in order that the authority upon which the statement rests may be known, and to convey, so far as the answers do it, the exact meaning of the observers. By adopting this method, they think, that some of the discrepancies which are,

at first view, so apparent in the accounts of different practitioners, will be less obvious, and more reconcilable with the general tenor of observation.

First, in reference to the age of the re-vaccinated, there is a general concurrence of testimony in our replies, (even where numbers or details are not given) that children under the age of puberty, who have been once successfully vaccinated, rarely take a second vaccination. Of seventy-nine cases of re-vaccination, said to have been successful, in which *the age is mentioned*, all were over the age of puberty except four; and in three of these, the evidence of the first vaccination having been perfect, was doubtful, leaving but one case, of a child, seven years of age, in which the secondary vaccination produced a genuine pock; of this case, Dr. O. H. Partridge, who reports it, says, "this was the case of a little girl of seven years of age, and of habits, remarkably susceptible. I was informed by her parents that, when an infant, she was vaccinated, it took, and went through its different stages well; two years after, she had the varioloid; six weeks since, I vaccinated her; the disease went through its different stages, and on the ninth day, I took virus from the arm, and vaccinated another person effectually."

The gentlemen from whom facts in reference to the age of the vaccinated are derived, are the following:—

Drs. Ashmead, Bond, Bournonville, Eckard, Harris, Jackson, Jewell, G. Moehring, S. G. Morton, J. F. Meigs, Mayer, J. M. Paul, Parrish, Partridge, Swift, Schaffer, West, E. Wallace, and J. Uhler. Of these Drs. Bournonville and Jackson express the general opinion, that children can rarely be made to take a second vaccination.

The next point in connection with the replies to this interrogatory to which we would direct the attention of the College, is the number of successful re-vaccinations reported; and the striking disparity which exists between the accounts of different physicians on this point. Thus, one physician reports two hundred and four successful re-vaccinations in five hundred and sixty-three persons subjected to the trial, and another thirty, in forty; while others have re-vaccinated large numbers without seeing a single case which appeared to them genuine. This difference evidently arises from a variety in the opinions, of practitioners as to what constitutes a genuine vaccine pock. The appearances which to the eye of one class of observers would be deemed characteristic of the genuine disease, would fail to convey the same impression to the minds of another class. Thus the standard by which our observations are to be estimated is not uniform; and our inquiries after truth in reference to this question are greatly embarrassed.

Of the five hundred and forty-one cases reported as genuine, in ninety-one only are the appearances considered characteristic described, so as to leave no doubt of the meaning of the author. In others the descriptions are vague and indefinite, while many state

that the secondary vaccination was genuine, perfect, and satisfactory.

Under these circumstances the committee have deemed it advisable, as in the preceding case, to give the authority upon which the statements are founded, in the language of the respondents.

Dr. Ashmead, reports one hundred and twenty-six re-vaccinations; ages between six and sixty years; one hundred and eleven after previous vaccination, fifteen after inoculation; twenty-five did not take the second vaccination; in fifteen of these, the cicatrix from the first vaccination was *very good*, large, deep, and pitted; in five it was very faint. In three cases only of the whole number re-vaccinated, has the re-vaccination been perfect, in all its stages and duration; these were adults.

Dr. Bond, replies. I have re-vaccinated eighty-seven persons since the middle of last November. The effects have varied, in all grades, from the phenomena of the best marked cases in the un-vaccinated, to that simple local effect which attests the genuineness of the virus. Not more than two or three had a genuine normal vaccine scab, and these have occurred in adults, much advanced beyond the age of puberty, and who had been vaccinated in very early infancy; several others, perhaps eight or ten, have had nearly or quite as much local and constitutional irritation, as is usually observed in vaccination of the unprotected. These cases have all occurred in adults who were vaccinated in infancy. Only one child has any claim to be ranked in this class. In eight or ten cases I re-vaccinated those, who had been re-vaccinated at a former period, and in these, only the slightest local irritation was produced.

Dr. Bournonville, replies. I have re-vaccinated two hundred and thirty-three individuals; of this number, fifty-one took the genuine vaccine pock; eighty-one inflamed from the first day, and continued to inflame considerably, producing an appearance of a genuine pock; forty-nine inflamed immediately, itched considerably, and disappeared on the fifth or sixth day; fifty-two did not take at all. Four of those patients who took the genuine vaccine pock, had been *inoculated* and one had had the *small-pox*. The vaccine virus used in these cases is genuine vaccine matter, *from the cow*, procured by myself from a dairy in Orange county, New York.

Dr. Beesley, replies. During the present epidemic, I have re-vaccinated two hundred and eighteen cases. In eight of these, the re-vaccination produced a vaccine vesicle, running in each a perfectly regular course; in thirty-four cases I have noted that they were nearly perfectly regular. About six of these cases had been inoculated in early life and had a large pit upon their arms. Several of the cases which I noted as nearly perfect were attended with great swelling and soreness of the arm.

Dr. Bridges, reports eight cases of re-vaccination, no case pre-

sented the appearances of the genuine disease; four of the cases were in children.

Dr. T. R. Brinckle, says. I have re-vaccinated about one hundred persons. In a large majority of cases it entirely failed. In some, the inflammation was high and was somewhat troublesome but of a spurious character. In six or eight cases, it seemed to pursue the course, and to present the characteristic appearances of the genuine vaccine pock.

Dr. Buffington, states. I have re-vaccinated forty cases, none of whom have taken small-pox or varioloid; *thirty out of the forty cases took the infection as well as usual*, where no vaccination had ever been performed.

Dr. B. H. Coates, reports forty cases of re-vaccination with the following results:—Redness gone within four days, in three.

Thickening and hardening around a vesicle, one of them badly torn; continuing two days or upwards, no marked areola, axillary soreness or fever. Sixteen cases.

Areola circular, cellular hardening irregular and smaller than areola; axillary tenderness little or none—in one instance considerable; fever various, generally slight or absent; in five cases large roseolas. Twelve cases.

Well marked areolas around good vesicles, twenty of moderate size, one large; good, circular hardening; axillary tenderness; fever—in acme from the seventh to eleventh day; in one a large and one a moderate roseola. Three cases.

One case not submitted to inspection.

Five cases were re-vaccinated a second time this season; in these the redness was gone in between four and eleven days.

Dr. Richard Chapman, of Kensington, reports over one hundred cases of re-vaccination; in only a very few instances has a vesicle been produced; the inflammation has generally subsided about the fourth day.

Dr. H. F. Child of the Northern Liberties, (one of the vaccine physicians) reports five hundred and sixty-three cases of re-vaccination; of these *two hundred and four succeeded*, and two hundred and fifty-nine either failed entirely, or were affected with a spurious disease. I call those cases successful (says Dr. Child) in which there is a regular vesicle, *nearly round*, formed between the seventh and tenth days, and which is surrounded by an areola; the course of the discase appears to be more rapid in adults than in children.

Dr. Eckard, reports fourteen re-vaccinated cases; has not observed the characteristic appearances of the genuine pock in any case, though one approached them closely.

Dr. Fox, reports forty-six cases; in twenty-three a vesicle was formed which presented appearances closely resembling the genuine pock, in many cases, however, attended with inflammation of an erysipelatous character. In thirty-six cases it was a second vaccina-

tion; in four after inoculation, in four after a third vaccination, all of *which approached the genuine;* in two after modified small-pox following vaccination, one of which approached the genuine disease.

Dr. Wm. Gregg, reports thirty cases of re-vaccination; all of which presented a spurious disease, though several approached the genuine.

Dr. Wm. Harris, reports two hundred and thirty-five cases, of these one-tenth did not take; two-tenths had the genuine vaccine disease, and seven-tenths had only a spurious form of the malady.

Dr. Helffenstein, of Kensington, reports seventy-five cases, six of which presented the characteristic appearances of the genuine vaccination.

Dr. Housekeeper, of Kensington, reports twenty-one cases, only one of which presented the characteristic appearances of the genuine pock.

Dr. M. P. Hutchinson, states. I have re-vaccinated one hundred and seventeen cases, in which the effects have been noticed by me; in eleven of these cases, the vaccination ran its usual course; in the others it produced considerable irritation, which lasted for some time, varying in character in different individuals.

Dr. S. Jackson, states that he has re-vaccinated a large number of persons since the year 1816. In by far the greater number, the result was merely a little itching sore, beginning on the day of re-vaccination or on the next, sometimes forming a little matter, sometimes, not often, surrounded by a little redness, scarcely an adumbration of the true areola, and dying away from the fourth to the tenth day. But there are yet too many cases that made all grades of approach to the true disease, and some have run the full course, so as hardly to be distinguished from it. But still the local disease was always a modification of the true vaccine; a mere vaccinoid.

Dr. B. S. Janney, reports forty-eight cases, in all of which a spurious disease was formed. Several on the ninth day were much inflamed, but in no instance was there a regular areola, neither has he ever seen it. Dr. Janney states that he saw a large number of sore arms in those who had been previously *inoculated*, than in those who had been previously *vaccinated.*

Dr. Wilson Jewell, reports one hundred and ninety-four cases of re-vaccination; in eighty per cent. of these, more or less phlegmonous inflammation was produced. In some cases and especially those who had passed the period of adolescence, there was more or less glandular irritation in the axilla and considerable swelling of the arm. In not more than three per cent. was there a genuine vaccine pock produced.

Dr. T. S. Kirkbride, refers the committee to his experiments on the re-vaccination of children with new virus in 1840, published in the American Journal of Medical Sciences No. 1., new series, for 1841. He has no facts during the present epidemic.

Dr. H. F. Leib, reports eleven cases of re-vaccination; all unsatisfactory.

Dr. J. F. Meigs, reports sixty-three cases of re-vaccination; of these nine took the vaccination perfectly; by which he means, that the disease passed through its phases as in those who are vaccinated for the first time. The puncture in these cases did not become irritated, until the third or fourth day, the pock was perfect on the ninth day, with the umbilicated centre, the hard base, and the scarlet areola; and after this period the inflammation rapidly subsided. Of these nine, all but one had characteristic cicatrices of previous vaccination on the arm; the ninth was doubtful. Dr. Meigs describes with accuracy the appearances presented in the remaining fifty-four cases; which however do not differ from those noticed in many other *reports*.

Dr. Norris, reports forty cases, in none of which were the distinctive characters of the genuine kine pock presented; nine of them were under twenty-one years of age.

Dr. I. Parrish, reports one hundred and twenty cases, mostly adults. Eighty-six were deficient in those appearances which mark the vaccine pock in any of its stages; twenty-five presented a spurious disease approaching in a greater or less degree to the genuine; there was a distinct vesicle with an indistinct areola, completing its course in from five to eight days, and then drying away in a crust, which in a few instances closely resembled a genuine vaccine scab, though distinguished by its lighter color and more fragile consistence. Five cases presented the characteristic appearances of the genuine pock, so far as he was capable of judging; one of these cases had been inoculated in infancy, and another had had small-pox in the natural way.

Dr. O. H. Partridge, reports from one to two hundred cases. I do not recollect but one case, says Dr. P. where the vesicle has pursued the course and presented the characteristic appearances of the genuine pock. This case was reported under another head.

Dr. R. Maris, *states*. I have re-vaccinated many persons; number uncertain: have seen no cases *perfectly* satisfactory.

Dr. E. R. Mayer, (one of the city vaccine physicians) reports two hundred and six cases of re-vaccination, and five have been vaccinated who were inoculated when infants. In sixty-eight of these cases, *including the five who had been inoculated*, a distinct vaccine vesicle, with central depression, and perfect areola, went through the regular course of the genuine cow-pock, maturing at the proper time. In many of the unsuccessful, there was local inflammation, accompanied by more pain, swelling of the arm, enlargement of axillary glands and constitutional disturbance than attends the genuine disease.

Dr. S. G. Morton, reports one hundred and two cases of re-vaccination, of these nine took the vaccine infection in a satisfactory man-

ner; many others had very sore pustules, and in a yet larger number no effect resulted.

Dr. Moehring, reports between two and three hundred cases; about fifty cases of which were boys and girls, from the ages of seven to fifteen years, attending the Hebrew Sunday School; little more than half the number took the vaccination, and only a third, with symptoms closely approximating a first regular vaccination.

Dr. J. Wilson Moore, reports upwards of two hundred cases; *in twenty-one* there was no result; in eight or ten there was a slight irritation like the sting of a bee. Fifty or sixty inflamed on the fourth day, some took on quite a diffusive form of inflammation, forming in a few instances a pock, and in others a pustule, and then suddenly dying away, with a brown or yellow crust on the seventh day, others were even more protracted, and attended with a greater degree of inflammation, and did not crust over until the ninth or twelfth day; but far the greater number crusted by the ninth day. There were a number of good looking pocks, which formed fine crusts, but when taken in connection with the nature of the inflammation, there was not more than one case that maintained the characteristic marks of primary vaccination.

Dr. John Uhler, reports seventeen cases; in six cases the disease was spurious, in three the vesicle and inflammation were perfect; two of these cases had been vaccinated in infancy, and had good scars, and one had been inoculated.

Dr. E. Wallace, reports nine cases; all spurious.

Dr. Edward B. Ward, reports twenty-five cases; a modified vesicle occurred in fourteen cases, six were not seen, and in the others no satisfactory result.

Dr. Francis West, reports thirty persons re-vaccinated by him; twenty-one adults, and nine children; three of the adults who supposed themselves protected, took the genuine vaccine disease.

Dr. G. B. Wood, replies. That he has kept no record of his re-vaccinated cases. He has however re-vaccinated a considerable number. In every case more or less inflammation has been produced, beyond what might be expected from the wound alone, and in several the local affection ran a course and presented appearances approaching to those of the genuine disease; but in none so closely that it cannot be distinguished.

Dr. Wiltbank, replies. I think I must have re-vaccinated about one hundred, in the great majority a vesicle was formed, which was evidently spurious.

Dr. Warrington, reports twenty-five cases, in none of which was a genuine vesicle produced, and in three only was there any considerable approach to the true characteristics of the vaccine disease.

Dr. Jacob Zorns, replies. That he has re-vaccinated a large number, in *none* of which cases was I satisfied in my own mind, that I

produced the true vaccine pock. I cannot produce the true vaccine pock and disease twice in the same system.

Dr. J. Marshall Paul, reports over one hundred cases; in this number four persons had a vesicle which presented the characteristic appearances of the genuine pock.

Dr. Isaac Remington, reports seventy-three cases; in six of the cases he succeeded in producing a genuine vaccine pustule, the disease pursuing a regular course.

Dr. Rohrer, refers to a paper of his published in the Medical Examiner for his views on this query.

Dr. F. W. Sargent, (Physician to Small-pox Hospital) reports nine cases of re-vaccination, these were all spurious; in two a scab resulted closely similar in appearance to that of a primary vaccination.

Dr. T. J. P. Stokes, (one of the city Vaccine Physicians) reports one hundred and fifty cases, in seventeen of whom the characteristic appearances of the genuine vaccine pock were produced.

Dr. Stocker, reports ninety-two persons re-vaccinated by him; of these, six pursued the regular course and were successful, fifteen took no effect; in seventy-one there was inflammation more or less extensive, with an acuminated scab, and in thirty-one of these the areola extended from the shoulder to the elbow; and in several, the glands of the axilla were more or less affected.

Dr. Paul Swift, reports fifty-two cases; all adults, and nearly all with one cicatrix on the arm; in thirty-one no effect was produced, in fifteen imperfect, and in six full and perfect success.

Dr. Schaeffer, reports about thirty cases; in four or five cases of adults the arms became a good deal inflamed, considerably swollen, with pain extending to the arm-pit; a vesicle was formed, it is true. but not of the normal kind; instead of the circular, smooth edge, and regular indentation, the edges were irregular with no indentation.

Fifth query. Have you seen any cases of varioloid following re-vaccination, and if so when was the re-vaccination performed.

In reply to this interrogatory.

Dr. Ashmead, reports four cases, under the following circumstances. Two cases which occurred in 1837, after having been re-vaccinated several years previously by Dr. A., both cases mild. Two during the present epidemic, occurring in the same house. One a child aged six years who had not been satisfactorily vaccinated in infancy, and was subjected to two subsequent trials without effect; the other, aged ten years, had a good cicatrix from first vaccination, and had been re-vaccinated with effect five weeks before the attack of varioloid; a mild case.

Dr. Eckard, reports one case of a female, who while nursing a patient with varioloid, was re-vaccinated by him, and a vesicle was produced closely resembling the genuine pock; on the ninth day after the operation febrile symptoms were developed, and on the tenth

about a dozen varioloid pimples appeared, which died away in three or four days.

Dr. Leib reports a case in which the varioloid eruption appeared about ten days after a re-vaccination had run its usual course.

Dr. J. Wilson Moore, reports a case in which a varioloid eruption, preceded by a three days fever, occurred six weeks after a re-vaccination, in which a vesicle was formed, and crusted on the seventh day.

Dr. Parrish, reports a similar case, of a lad who was exposed to the contagion, and re-vaccinated; a pustule was produced, and as it was drying away, the varioloid eruption appeared, and dried away in a few days.

Dr. Zorns, reports a case in which a female who was nursing her children with varioloid, took it from them; after a second vaccination performed four years before. But in this instance, *no regular pustules formed.*

The summary, or comprised answer, to this query, gives us only nine cases of varioloid following re-vaccination: two after an interval of several years; one of four years; two about the ninth day after the operation, or as the pustule was drying; one on the tenth day after the pustule had run its course; and one after an interval of six weeks. In several of these cases it is probable that the infection had been received before a resort to re-vaccination.

The Sixth Query. What has been the result of your observations in regard to the spread of the disease by contagion, when re-vaccination has not been resorted to?

The statements on this point are somewhat conflicting. There is, however, a general concurrence in the reports before us, as to the propriety of re-vaccination during an epidemic of varioloid or small-pox, and it has been almost universally practiced during the late visitation of the disease. Some physicians have no confidence in the protective power of re-vaccination farther than as a test of the efficiency of the primary vaccination, and only recommend it with this view. While others believe that it prevents the spread of the modified disease. Twenty-five of our replies contain definite information on this subject. Fourteen of these respondents express a decided opinion as to the protective power of re-vaccination against varioloid, and confidently recommend it on this ground in all cases where the disease appears. Of the other thirteen, eight are undecided as to the efficacy of the process in preventing varioloid, but practice it as a measure of safety, and as a test.

In pursuance of the plan laid down by the committee, they will proceed to give the authority upon which these several views are based.

Dr. Ashmead, never saw the disease spread after re-vaccination performed by himself. He invariably practices early re-vaccination

after the appearance of the disease in a family, and states a number of facts which, he thinks, attest its efficacy in preventing its progress.

Dr. Bournonville, has never known the disease to spread after re-vaccination, and has invariably practiced it.

Dr. Beesly, remarks, I have met with from one to three cases in families where re-vaccination has not been resorted to, in due time. I have uniformly practiced re-vaccination when I felt the least doubt of the security of those who consulted me.

Dr. Richard Chapman, states that his experience during the present epidemic and in former years confirm him in the belief that re-vaccination is a preventive to varioloid, if performed in time.

Dr. Child, remarks. I have made it a rule to re-vaccinate all persons residing in families, where the disease occurs under my notice.

Dr. Helffenstein, replies. I believe that in some systems vaccination loses some of its protective powers over small-pox, and that in such cases the contagion of small-pox will produce varioloid or modified small-pox; that the violence of the attack will be in proportion to the length of time that has elapsed since vaccination; that among such cases a re-vaccination will prevent an attack of the disease, although the vaccine pock may not present all the characteristics of the genuine one.

Dr. Janney, replies. In one family re-vaccination was desired and performed; there was no spread of the disease. In another family two cases evidently were derived from the first, and in two other families each had one.

Dr. E. R. Mayer, entertains the opinion that after the change effected in the system at puberty, the liability to take modified small-pox is increased in those who before that period had been more perfectly protected, and hence, we presume, he would recommend re-vaccination after puberty as a preventive to varioloid.

Dr. J. Wilson Moore, replies—Varioloid will be communicated in families where it exists, though I do not believe it to be a very active infection. Re-vaccination has always prevented its spreading when timely resorted to.

Dr. O. H. Partridge, believes, from his observations, that all persons ought to be vaccinated every six or eight years. In all families where I have had cases of small-pox this winter, says Dr. P., I have found that every person had varioloid more or less severe who had not been re-vaccinated within five years. I have not seen a case of varioloid, or a single symptom of it, among all those I have re-vaccinated this winter, and some of them have been very much exposed.

Dr. Remington, remarks—I do not consider vaccination a perfect protection against small-pox, and should, therefore, be in favor of recommending re-vaccination between the ages of ten and thirty years, as I apprehend there is the greatest susceptibility at that period of life.

Dr. Wood, replies—In answer to this question I will merely observe that, in one large family, consisting of between fifteen and twenty persons, all of whom were more or less exposed to the contagion of a severe case of small-pox in the house, and most of whom were re-vaccinated by myself or others, not one of those re-vaccinated was affected with varioloid, while three persons, not thus protected by re-vaccination, were attacked by it, as I was informed.

Dr. Uhler, replies—That in a family where a death occurred from small-pox, the number of children were eight: five of the elder, together with the father, took varioloid very lightly, the two youngest I vaccinated at the time the small-pox and varioloid were in the house: neither of whom took the disease, although they were exposed during the entire period of their vaccination.

Dr. Yardley, replies. In one family, composed of seven individuals, in which re-vaccination was not performed, five in succession had the disease; four children, modified small-pox, and one adult, regular small-pox. It was my practice to re-vaccinate all adults when the disease appeared in a family.

On the other hand, we present the testimony of the following gentlemen, in opposition to the above statements:

Dr. T. R. Brinckle, replies—The result of my observation has been, that in a majority of cases, the protection afforded by vaccination (we presume primary) is absolute, but I have seen cases where the disease has appeared to spread by contagion.

Dr. Eckard, replies—The result of my observations is greatly increased confidence in the protective powers of vaccination. I am not prepared to state an opinion as to the propriety of a re-vaccination. I would neither recommend or refuse it, until I have a greater number of facts on the subject.

Dr. William Gregg, replies—In no family where I have attended a case of varioloid, have I re-vaccinated, and I have not seen it extend beyond a single case, except in one instance—this was the case of a child who had suffered from a previous attack. She, with five other children, were exposed to the contagion, all the others escaped.

Dr. William Harris, reports two cases of varioloid in two distinct households, in which he practiced re-vaccination upon the other members of the family, and all escaped. In another family the mother had the disease; three small children, who had been vaccinated within a few years by Dr. Harris, were not re-vaccinated, and escaped.

Dr. Jackson, expresses his great confidence in primary vaccination, and believes "that very few, surely not one in a hundred of those exposed freely, have taken varioloid."

Dr. I. Parrish, Has generally re-vaccinated those exposed to varioloid, but has seen many instances of escape from the disease, in those who have been freely exposed, and who have not been re-

vaccinated; has seen facts which would appear to favour both the affirmative and negative of the proposition presented by the committee, his own mind is undecided as to the protective powers of re-vaccination against varioloid.

Dr. Stokes, replies. From all the facts which I have observed, I am inclined to believe that re-vaccination is unnecessary in the great majority of cases, though Dr. S. admits that in no instance of either variola or varioloid, coming under his notice, had re-vaccination been performed.

Dr. Wiltbank, replies. Three of the cases of varioloid under my charge occurred in large boarding-houses. The disease did not, in either instance, extend, although the great majority of persons living in the respective houses were *not* re-vaccinated. In one house containing, I suppose, thirty boarders, I re-vaccinated one; in another, with nearly as many boarders, two, and in the third, none; the attack of varioloid was here very light; the gentleman, during the whole progress of the disease, had free intercourse with all the members of the family, and yet no one took it from him. The first case under my care was that of a gentleman in a private family with nine children and four adults, (including servants,) he communicated, without the least restriction, with all, and yet the disease did not extend; some of the family were re-vaccinated.

Dr. E. Wallace, reports a case of varioloid in a family of eight persons, all of whom had been once vaccinated in infancy, and in whom re-vaccination was not performed, and all *escaped the disease.*

Dr. Warrington, replies. That he has had cases of varioloid in three different families, in which he has not performed re-vaccination, and all the members escaped, except a servant girl, in one family who had the eruptive fever without the eruption.

Dr. West recommends re-vaccination solely as a *test* of the genuineness of former vaccinations, and not because of their supposed limited duration, or of the efficiency of re-vaccination in neutralizing the variolous contagion.

In answer to the Seventh Interrogatory, viz: Have any facts occurred to you, to determine the question, whether vaccination performed within the first few days or weeks after birth, is equally protective in adult age, as when performed later in life?

The committee have received but a small number of facts bearing upon this question, though several gentlemen express their opinion that vaccination performed in very early infancy, is less effectual and permanent, than when performed later in life.

Dr. Ashmead, replies to this question. That he failed in producing any effect in the re-vaccination of a child aged six years, whom he had vaccinated successfully when four weeks old.

Dr. Bond, replies. My observations led me long ago to the conclusion that the adult is not equally well protected by vaccination performed in very early infancy, within the first few weeks, as when

performed in more advanced age; and that it is always advisable to test the efficacy of such early vaccination by repeating the operation when the individual advances towards mature age. My observations in this epidemic tend very much to confirm me in the correctness of these views.

Dr. Richard Chapman, is disposed to believe, from his experience, that vaccinations, within the month, are not to be relied on as much as those performed later.

Dr. Gregg, replies. It is at least thirty-six years since I was vaccinated. I have never taken small-pox in any of its forms. I can say the same for two brothers and one sister.

Dr. S. Jackson disapproves of vaccination before the fourth month. He states that many persons who have suffered varioloid, in this city, within the last eight years, were vaccinated during their first two months, and not again; he mentions four cases of varioloid in persons who were successfully vaccinated by the late Dr. Joseph Parrish, from the fourth to fifth week.

Dr. Wilson Jewell, does not approve of vaccinating before the third or fourth month, but states no facts upon the subject.

Dr. J. Wilson Moore, replies. That his opinion is averse to vaccinating before the third or fourth month, but he has no facts on the subject of the question.

Dr. O. H. Partridge, states that from a number of facts which have come under his observation, he believes that vaccination performed within the first few days or weeks after birth, is not equally protective, as when performed later in life.

Dr. J. Rodman Paul, states his own case as a strong instance of the protective power of a first vaccination, even when performed very young. He was successfully vaccinated "within the month," and has since been repeatedly exposed to small-pox, in all grades and forms—has never been re-vaccinated, and has escaped contagion.

Dr. I. Parrish mentions his case as a still more striking instance of the efficacy of early vaccination when perfect; he was vaccinated within ten days after birth, (in consequence of being in some danger from the contagion of small-pox) the disease took perfectly, and from that time to the present, the operation has not been repeated, and he has remained exempt from varioloid or small-pox, although repeatedly exposed to the most active contagion.

Dr. Stokes, replies. In several instances children were vaccinated at two or three weeks of age by me, in families, where the small-pox afterwards prevailed, in no instance was I aware of their being affected by small-pox.

Dr. Warrington has never met with a case of varioloid occuring in a person whom he has vaccinated, though many of these were vaccinated seventeen years ago. It is his practice to vaccinate in early infancy, usually under six months.

From a review of these replies, it would appear,

First—That children or persons, under the age of puberty, rarely take the re-vaccination, if the previous vaccination has been perfect. All the cases reported, furnishing but one unequivocal case of successful re-vaccination, and that in a constitution peculiarly susceptible.

Secondly—That though there is a great disparity in some of the reports, yet the large proportion of the respondents agree in the opinion, that vaccination in an adult, once protected by previous vaccination, inoculation, or an attack of small-pox, will, in some instances, pursue the course, and present the characteristic appearances of the genuine disease. The proportion of cases in which this result will take place, cannot be definitely arrived at, from the materials before us.

Thirdly—It is evident, from the tenor of some of the replies, that those physicians who have reported the highest rates of successful cases, have fixed in their minds a standard of what constitutes a perfect pock, much lower than that which is held by the great mass of the medical profession; and, on the other hand, that those gentlemen who, in a large number of re-vaccinated cases, have seen no case which they would deem perfect, have an estimate of the perfect pock which the public sentiment of the profession, judging from the replies now before us, and from the published reports on the same subject from Europe, would not sustain.

In concluding this report, your committee have not deemed it advisable to attempt to draw any conclusions from the materials before them. They have preferred to present the facts which have been elicited, to the consideration of the Fellows, that each may form his own judgment from the lights thus furnished. They are aware that discrepancies exist in the statements of many of the respondents; but it must be remembered, that the questions involved in the inquiry are, comparatively, of recent origin. Varioloid is a new disease amongst us, and the protective power of vaccination has, until recently, been considered absolute. The minds of the profession are just beginning to be applied to this new state of things, and in the absence of positive data, there will, necessarily, be much speculation, and no little difference of opinion.

Time and future investigations will doubtless dispel much of the mystery which now envelops this subject: and your committee trusts that the facts which, under your authority, have been kindly furnished them, will, at least, not be valueless in the progress of the inquiry which is still going on. They may also express the hope, that if we should unhappily be visited with another epidemic, no time will be lost in making accurate observations of its progress; and that physicians will be especially careful to keep a record of all the facts bearing upon the effects of re-vaccination, the class of persons attacked, age, sex, &c., &c. The committee feel that it was

an obvious defect in the present inquiry, that it was commenced so late in the course of the recent epidemic; and, hence, that many physicians, in preparing their reports, were obliged to rely mainly on their recollection, instead of a positive record.

Isaac Parrish,
Henry Bond,
John Rodman Paul, } *Committee.*

With the report were handed in the original communications received in reply to the circular of the committee.

On motion of Dr. Bell it was resolved that the foregoing reports be inserted at length in the printed Summary of Transactions.

The College proceeded in accordance with the requirements of the eighth chapter of the By-Laws, to the election of a Committee of Publication, when the following Fellows were elected:—

D. Francis Condie,
Isaac Parrish,
Samuel Jackson.

Dr. Moore presented a preparation showing a very complete ligamentous union which had taken place after a fracture of the head of the thigh bone. The patient was a female, eighty-four years old when the accident occurred. She survived the accident twenty months, and was able to walk about with the aid of a cane. Her death took place from causes altogether independent of the fracture.

SUMMARY

OF THE

TRANSACTIONS OF THE

COLLEGE OF PHYSICIANS

OF PHILADELPHIA.

FROM DECEMBER, 1846, TO APRIL, 1847, INCLUSIVE.

Stated Meeting, December 1st, 1846.

Dr. WOOD, Vice President, in the chair.

Present, twenty-four members.

The Library Committee acknowledged the receipt of the following donations to the Library of the College:—

From Dr. STILLE—

Address on Medical Education in the United States, delivered to the Students of the Philadelphia Association for Medical Instruction, at the close of the Session of 1846. By Alfred Stillé, M. D., &c.

From Dr. HAYS—

On the Use of Sea Water in Diseases of the Glands. By Richard Russel, 1752. 12mo.

Erster Medichinischer Jahresbericht vom Marien-Krankenhaus für Arme in St. Petersburg—vom Jahr, 1836. 8vo.

Medichinischer Jahresbericht vom Peter Pauls' Hospitale in St. Petersburg, für das Jahren 1840 und 1841. Von Dr. Thielmann. 2 vols. 8vo.

Jahresbericht über die Verhandlungen des Naturwissenchaftlichen vereins in Hamburg, von Nov. 1841, bis Nov. 1842. 8vo.

Ph-Car. Hartmann—Institutiones Medico-practicæ. De Febribus. 8vo.

Das Protein, und seine verbindungen in physiologischer und nosologischer verziehung. Von Dr. H. Hoffman. 8vo.

Das Blei und seine wirkungen auf den thierischen körper. Von Dr. F. Rumpelt. 8vo.

Proeve over de Zedelijke waardering van Menschelijke daden, handelingen en bedrijven. Door H. J. Shouten, M. D. 8vo.

Wie Studert man Medicin? von Dr. H. Neumann. 8vo.

Der Chemismus in der theirischen organisation. Von Dr. F. L. Hunefeld. 8vo.

Permission was granted to the Philadelphia Medical Society to place its Library in the College Chamber, and the Library Committee were directed to have a case made, corresponding to those now in the chamber, for its reception.

The amendment to the By-Laws proposed at the last meeting; namely, to insert after paragraph 11, Sect. II., Chap. X. of the By-Laws, the following section, was adopted.

"In the cases referred to in the two preceding paragraphs, the physician called in shall be entitled to the usual fees for his services; *provided*, that this rule shall not be understood to interfere with a friendly reciprocal interchange of services between physicians."

On motion, it was *Resolved*, That the College appoint twelve delegates to represent it in the National Medical Convention, to be held in this city, in May, 1847.

When the following Fellows were appointed Delegates accordingly:—

Thomas T. Hewson,	William Pepper,	Robert C. Bridges,
Alfred Stillé,	Caspar Morris,	J. Rodman Paul,
J. Wilson Moore,	Isaac Hays,	Jacob Randolph,
Samuel Jackson,	George Fox,	D. Francis Condie.

On motion, it was *Resolved*, That the said Delegates be authorized to act in conjunction with such other Delegates as may be appointed by the several Medical Institutions of Philadelphia, in procuring a place of meeting for the Convention, and in making preparations for the reception of the Delegates from abroad.

Dr. Parrish read a paper containing an account of the experiments performed by Dr. Bigelow and others, with an etherial preparation, proposed by Drs. Jackson and Morton, of Boston, Mass., as a means of preventing pain during surgical operations, detailed

in the Boston Medical and Surgical Journal; with some animadversions on the conduct of Drs. Jackson and Morton in keeping the composition of the etherial preparation a secret from the profession, and in attempting to secure the use of it to themselves and their agents by a patent.

The paper gave rise to a discussion in which several of the Fellows participated.

Dr. Ashmead related a curious case of impaired vision, with dilatation of the pupil of one eye. The patient had the day previously taken up a dry head of stramonium and shook it several times, to cause a rattling of the seeds contained in it. On the ensuing morning, an irritation was felt in the affected eye, which caused the patient to rub it, when he perceived a foreign body beneath the lid; this, when extracted, was found to be a seed of the stramonium. Soon after its removal the impairment of vision and dilatation of the pupil disappeared.

Stated Meeting, January 5th, 1847.

Dr. Huston, in the chair.

Present, twenty-two members.

Anthony E. Stocker, M. D., and John Neill, M. D., were admitted as Fellows of the College.

Thomas Stewardson, M. D. having removed to the City of Savannah, Georgia, and in consequence, forfeited his Fellowship, was duly elected an Associate.

The following paper, read by Dr. Parrish at the last meeting of the College, was, by a resolution passed this evening, directed to be inserted in the Summary of the Transactions.

Dr. Parrish remarked that his duties as a member of the Committee on Vaccination, &c., had prevented him from preparing the Annual Report on Surgery, which was due at the meeting in November, and that since then, he had found it impossible to arrange the materials in his possession into proper form; he, therefore, asked to be released from the duty of presenting the report for this year. With permission of the College, he would, however, take this opportunity to notice a subject he had intended to incoporate in the report, which, from its novelty and interest, was worthy of an early

notice. He referred to the recent announcement of a method of producing insensibility to the most acute pain by the inhalation of an etherial vapour.

The verity of this discovery, comes to us upon the authority of Dr. H. J. Bigelow, of Boston, one of the Surgeons of the Massachusetts General Hospital, endorsed by his colleagues, Drs. Warren and Hayward, two of the most eminent surgeons of the country. An account of the history and character of the process is contained in the Boston Medical and Surgical Journal, being the substance of a paper read by Dr. Bigelow before the Boston Society of Medical Improvement, on the 9th of last month.

The facts stated are briefly as follows:

On the 16th of October, 1846, an operation was performed at the hospital by Dr. Warren, involving an incision near the lower jaw, of some inches in length, on a patient who had inhaled a preparation administered by Dr. Morton, a dentist of Boston, with the alleged object of producing insensibility to pain. During the operation the patient muttered and appeared to be in a semi-conscious state, and afterwards stated that the pain was considerable, though mitigated. On the following day, the same vapour was administered to a woman, from whom Dr. Hayward excised a fatty tumour of considerable size, situated over the deltoid muscle. The operation lasted four or five minutes, during which time the patient appeared at times to be uneasy, but upon regaining her consciousness, she declared that she had felt no pain, that she knew nothing of the operation, and was only uneasy about a child she had left at home.

At a subsequent period, November 17th, Dr. Hayward amputated the right leg of a young girl, above the knee, for disease of the joint. Prior to the operation, she was made to inhale the vapour, and in five minutes was insensible. The last circumstance she could recall, was the adjustment of the mouth-piece of the apparatus, after which she was unconscious until she heard some remark at the time of securing the vessels; she knew nothing of the removal of the limb, and had not felt the first incision; during the operation she refused to answer questions, and was evidently insensible to surrounding circumstances.

On the same day, Dr. Warren removed a part of the lower jaw from a patient who was subjected to the influence of the vapour; she was unconscious of the first incision, but recovered her sensibility before the close of the operation.

The above is a brief outline of the cases reported by Dr. Bigelow, as having occurred at the Massachusetts General Hospital.

In addition to these, Dr. B. witnessed a number of operations in dentistry, performed by Dr. Morton, in which the effects were very similar to those described.

A boy of sixteen, at the moment of the extraction of a tooth raised his hand, and appeared to be in pain; but on awaking, said

"he had had a first rate dream;" without having experienced the slightest pain. In another case, a middle aged female had a molar extracted, and continued smiling in the chair for three minutes afterwards; on coming to herself she exclaimed that it was beautiful, she dreamed of being at home, it seemed as if she had been gone a month.

Dr. Bigelow, further remarks, as the result of his observations, that the inhalation, after the first irritation has subsided, is easy, and produces a complete state of unconsciousness, at the expiration of from two to five or six minutes, or sometimes eight, during which the patient is completely insensible to the ordinary tests of pain.

The pupils are generally dilated, but with allowance for excitement and other disturbing influences, the pulse is not affected in frequency; the patient remains in a calm and tranquil slumber, and wakes with a pleasurable feeling.

The effects of the inhalation are not uniform; one or two robust patients failed to be affected. One woman became much excited, and was obliged to be confined to the chair. "Very young subjects are affected with nausea and vomiting, and for this reason, Dr. Morton, refused to administer it to children." In a few cases the patient continued to sleep tranquilly for 8 or 10 minutes, and once after a protracted inhalation for an hour. The history of the latter case is given at length in Dr. Bigelow's paper, and manifests serious affection of the nervous system, analogous to the effects produced by an overdose of a narcotic poison; the pulse fell from 120 to 96; the respiration was slow, with cold hands, and complete insensibility for nearly an hour; ammonia to the nostrils, and internally cold affusions, &c. failed to produce sensibility for 15 minutes, finally being lifted to his feet, and made to walk, re-action was slowly established, though not without alarming symptoms. In this case, the inhalation was continued for nearly 25 minutes.

Since the appearance of the paper of Dr. Bigelow, several other cases have been reported; two amputations rendered necessary by railroad accidents, are said to have been satisfactorily performed without pain, by Drs. Pierson and Fisk, of Wenham, Massachusetts.

In this city, Foster and Worrell, two dentists on Arch street, have announced their possession of the article derived from the Boston proprietors, and report their success in its use. We were informed by one of these gentlemen, that he has extracted about thirty teeth within the past two weeks from persons while under the influence of this inhalation, and that its effects in preventing pain, during the operation, have been, generally, entirely satisfactory to himself and his patients.

From the above narration, it will be perceived, that a powerful agent for producing insensibility to pain, is now fairly brought to the test of experiment, and if the favorable accounts received, through the high authority which we have quoted, should be confirmed by

subsequent experience, and if no serious effects should be found to follow its application, it may justly be considered as an important medical discovery.

It is not intended of course by these remarks to give the impression that by the evidence furnished of the effects of this article, its true value is, as yet, sufficiently decided, to establish any conclusion in regard to it. This can only be tested by repeated and well directed experiments, made by those who possess a knowledge of the human system, which will enable them to judge of its precise effects, and to these we must look for the decision of its merits.

Before leaving the subject, we would venture a remark or two, in reference to the manner in which this new agent has been brought before the public.

Its composition is kept secret, though from its sensible properties, there is little doubt that it is an etherial solution of some narcotic substance. Dr. Bigelow instituted a number of experiments to test the effects of the inhalation of sulphuric ether and oil of wine, neither of which articles possess the peculiar properties of this preparation, though the oil of wine produced effects quite analogous to it; with this, patients were tranquillized and lost all inclination to speak or move, but their consciousness continued.

That an agent, which is said to possess such useful qualities should be patented, and that the patent should bear the name of an intelligent physician, and a man of science, must be a source of extreme regret to every liberal member of our profession. We understand that both the patentee and the proprietor, hold a diploma from a medical college; and we observe further, that the course of these gentlemen in making merchandize of this discovery, if not openly justified, is excused by the Boston Medical Journal. We trust that these facts are not to be taken as an expression of the sentiments of the medical community of Boston.

If the agent referred to, really possesses the power claimed for it; if its character as a certain and safe means of assuaging human suffering should become established, how different will be the position of its discoverer from that held by the true promoters of science. Whatever plea may be set up at this late period, for the restrictive policy of securing patent rights for discoveries which tend to relieve the sufferings of mankind, or to extend the boundaries of science; the sordid motive of self-aggrandizement and individual interest in these as in inventions relating to manufactures and the mere mechanic arts will undoubtedly be attributed to those who avail themselves of this policy. It is to secure individual rights against the public appropriation of an improvement that the law grants the patent vesting exclusive ownership in the inventor, with the right to dispose of his invention for his own profit. To us it would appear much more candid and manly for those who avail themselves of this privilege and use it to this end, openly to avow it and not attempt to excuse

their course by pretending great solicitude for the public welfare; the fear, if their secret is made known, that unworthy and ignorant people may use it to the detriment of others, when it is well known that many of the most useful and indispensable substances in daily use, are, if improperly employed, exceedingly dangerous and destructive.

How far the eminent physicians who have given this article their sanction without knowing its contents, are justified in this departure from the rule, which has generally regulated the conduct of the most honorable and conscientious members of our profession in such cases, it is not for us to determine. In the present instance they may have deemed the circumstances of such a character as to warrant them in adopting this course; but we sincerely hope that no precedent will be thereby established which shall tend to lower the standard of physicians on this point. There is a principle involved in this question of patents which is vital to the existence of the medical profession as a liberal, humane, and scientific art. If that be given up, and the doctrine be substituted, that the physician has a right to appropriate to his own pecuniary benefit any useful medical discovery which he may make, the barrier that now separates us from the charlatan is broken down, and the high position which our profession has long held as a humane and dignified calling is lost.

We hope, therefore, that whatever may be the results attained by this new process, that medical men will be especially careful to avoid any compromise of principle in regard to the position in which it stands before the public, and that the whole medical community will, with one voice, enter their protest against keeping secret, any process or preparation, a knowledge of which would extend our means for the relief of human suffering.

On motion of Dr. Coates, it was *Resolved*, That so much of the By-Laws as relates to what is denominated "the right of the floor," be referred to a committee of three, with instructions to report whether any modification of the same is demanded.

Committee, Drs. Coates, Gibbons, and Norris.

Dr. Hallowell read the following

Cases Illustrative of the Natural History of Tuberculous Disease.

Case I.—Elizabeth M., ætat 4 years, born of healthy, but somewhat emaciated parents, enjoyed good health until March, 1838, when she had the measles; three weeks after recovery from the measles, she was attacked with bronchitis, the cough that existed during the measles having never altogether ceased. This disease lasted six weeks, after which she had her usual health, with the exception of a slight cough hardly perceptible, and a certain degree of emaciation; she took cold also, on the least exposure. This

state of things continued until September, 1839, when she was seized with a remittent fever, characterized by evening exacerbations, and accompanied with marked symptoms of catarrh; mucous and sonorous rales were heard to a great extent on both sides of the chest, which sounded well in percussion. The attack lasted a month, during which, she was under the care of my friend Dr. Boyer, from whom the above account is derived. Recovering from it, she continued as well as usual, until the 22d of November, when Dr. Boyer was again requested to see her; she then presented for the first time symptoms of cerebral disturbance; there was much restlessness and peevishness of disposition and frequent startings in her sleep; she complained also of pain in the head, placing her hand frequently upon the forehead just above the eyes, and when questioned upon the subject, stated that to be the seat of pain. This was first observed on the 23d of November. The same day slight twitchings of the limbs were noticed; on the morning of the following day, there was strabismus, the left eye being turned inwards; vomiting occurred, for the first time on this day, and continued at intervals, until the 27th, when it ceased. During this period she vomited about six times; the attacks of pain had now become more frequent and were attended with screaming; these symptoms were followed by coma, which was not observed until the night of November 30th: up to this period the child recognised its parents; slight convulsive movements of the lower limbs were noticed early this morning; the bowels have been rather costive. Treatment: twenty leeches were first applied to the temples, and cold applications made to the head; she was also directed to take

℞. Sub. mur. Hydrarg., grs. iv. Pulv. R. Rhœi, grs. x. M.

which produced three or four evacuations, blisters were then put behind the ears, since which she has been taking calomel in small doses.

Present state; December 1, 4 P. M., when I saw her for the first time, in consultation with Dr. Boyer. Hair light brown; eyes hazel; decubitus dorsal; face quite pale; emaciation moderate; no rigidity of limbs; eyes much sunken; pupils slightly dilated, but contract slowly on exposure to the light; cries frequent; conjunctiva slightly injected; lips dry; frequent and rapid motion of the under jaw, as if chewing; abdomen slightly tense, but not tumid; not painful on pressure; bowels opened twice to-day and once yesterday; temperature of skin somewhat elevated; warmer upon the head than superior extremities; pulse 116, small and feeble; not intermittent; respiration 28; irregular; cough slight but loose, without expectoration; chest not examined.

℞. Emplast. Lyttæ, 2 + 3 to back of neck.

℞. Sub. mur. Hydrarg. grs. iii. Pulv. R. Rhœi, grs. iv. M. f. pulv. statim sumend. —continue cold to head.

December 2d, 10½ o'clock, A. M.—Bowels opened three times; stools of moderate size, very dark-colored, nearly black, and quite offensive; was quiet until 10 o'clock, after which uneasy and restless; no screams, but almost constant moans. Present state: decubitus dorsal, inclined to one side; limbs extended; eyes wide open; lids equally separated; pupils slightly dilated; countenance dull and vacant; look fixed, and not expressive of the least intelligence; cheeks suffused, the left with a large red spot in the centre; left eye at times much convulsed, the ball being turned inwards; no twitchings of the limbs; right upper extremity rigid; the rigidity appearing to affect all the joints; fingers incurvated, but readily extended; left arm frequently in motion, at times slightly convulsed, sensibility in both arms obtuse; slight rigidity of the left ankle joint, other joints as well as those of opposite extremity supple; lips three or four lines apart; teeth not encrusted; lower jaw much in motion; forehead and temples warm; cheeks cool; extremities warmer than natural; pulse 126, less feeble than yesterday, having a slight degree of tension, small, not intermittent. *Chest*, slight dullness under right clavicle, in a space of about two inches; respiration rude throughout whole of chest, with mucous and sibilant rales in spots; subcrepitous rales at base of both lungs posteriorly, with slight dullness in upper half of left; respiration 40.

℞. Sub. mur. Hydrarg. gr. iss. G. acaciæ, gr. x. M. F. pulv. ix. Sig., one every three hours.

3d. Expression of countenance more intelligent, but still vacant, pupils slightly dilated, as at last visit; face somewhat suffused, the cheeks presenting a rosy hue; moaning almost constant, with frequent automatic movements of left upper extremity, at times grasping in the air; more frequently employed in picking at the nose and angles of the mouth; rigidity of right arm increased since yesterday; elbow and shoulder joints quite stiff; fingers and wrist readily flexed; rigidity of left ankle joint continues; knee and hip joints less supple than those of opposite side; sensibility of lower limbs equally obtuse; bowels open twice since last visit; stools less dark, voided with pain; respiration rude, with slight sonorous rale more resonant on left, where the respiration is also more expansive posteriorly; dullness over upper half of left side; respiration rude throughout whole of chest posteriorly, with slight sonorous and mucous rales; respiration 42, regular, not intermittent; pulse intermittent, quite small with a slight degree of tension, about 120; blister to the neck nearly healed; those behind the ears quite dry.

℞. Continue powders.

4th. 10½ o'clock, A. M., *dying*.—At 12 o'clock last night she had a convulsion, which lasted several minutes; the right upper extremity and the left lower were much agitated, the others were not affected. Present state: a livid hue pervades the whole countenance; nos-

trils dilated; lips quite livid; respiration 50, high and labored; hands and feet quite cold; pulse scarcely perceptible; bowels not disturbed since last visit.

The child died about an hour after our visit.

Autopsy. December 5th, 27 hours after death.—Exterior. Emaciation, moderate, but well marked; no œdema of upper or lower extremities; limbs quite rigid; back of neck, thorax and loins, as well as lower extremities, mottled from position.

Head. Slight effusion of blood on separation of dura mater; longitudinal sinus filled with a black coagulum; pia mater injected on both sides of brain; veins moderately distended. A quantity of opaque milky fluid beneath arachnoid; anterior and middle lobe of left hemisphere, and posterior lobe of right studded with numerous opaque granulations of the size of a grain of millet; they are found also upon the anterior lobe of the latter hemisphere, but less in number than on corresponding lobe of opposite side. On the inner aspect of the left hemisphere, they are thickly agglomerated, in a space of about two inches; the pia mater in the neighborhood, as well as that upon the posterior surface of the right hemisphere, is much more injected than in other portions of the convex surface of the brain. In the left fissure of Silvius, these granulations are very numerous. In no part of the brain are they so abundant; and in none is the pia mater more highly injected. Beneath the arachnoid lining the dura mater, are also observed a number of granulations of the size of millet seeds, opaque and hard to the touch; they are elevated above the surrounding surface of the arachnoid, which is perfectly pale and natural in appearance throughout. *Base*—about half an ounce of limpid serosity at base of brain; pia mater injected, but less than upon convex surface; granulations numerous, but much smaller, than in latter situation, and less abundant. Around the commissure of the optic nerves, is a considerable deposit of yellowish matter, about half a line in thickness; cortical substance pale ash-colour and of natural firmness; convolutions not depressed, about nine lines in depth; medullary substance pale and firm; not injected; no serosity in cavity of ventricles; their surface pale and moist; thalami nerv. optic. and corpora striata, firm; septum lucidum and fornix healthy; cerebellum of good consistence; membranes injected, more especially at base, where there are a few small granulations.

Neck. Larynx pale and moist, no ulcerations. Cervical glands not examined.

Thorax. No effusion in either cavity—several tubercles are seen beneath the costal pleura, somewhat elevated above the surrounding surface. *Lungs.* More or less livid posteriorly, mottled fawn colored anteriorly, with the exception of middle lobe of right lung, which is of a pale fawn-colour throughout. Beneath the pleura, numerous small granulations are observed, of various dimensions, the largest about the size of a grain of millet, of a dull white colour, giving it a rough

appearance; the upper and middle lobes are adherent; tissue of upper and lower lobes of both lungs of a dull red colour, but crepitant, filled with tubercles; middle lobe of right quite pale and perfectly crepitant, studded throughout with same bodies, but of smaller size. Mucous membrane of trachea injected and thickened; bronchial mucous membrane of a deep red colour, extending to the smaller ramifications. Glands greatly enlarged and tuberculous; one to the right of the bifurcation, one inch and a quarter by three-fourths of an inch in size. On the opposite side is another, three or four lines in its longer diameter: they are both of a light yellow colour internally, and of cheese-like consistence. In the angle of bifurcation, is a third, one inch by half an inch in dimensions, presenting the same appearance when cut into, as those described. Pericardium pale, containing a very small quantity of limpid serosity; no tubercles beneath it. Heart rather large, five inches and three quarters in circumference at base; two and a quarter in length, measured from root of aorta; the right cavities containing a quantity of black blood, and the left, also. Orifices, valves, lining membrane, healthy; left ventricle four lines in thickness, exclusive of columnæ carneæ, right one line, the left ventricle might contain a horse chestnut, circumference of pulmonary valves, one inch and a quarter; of aorta, one and a half.

Abdomen. Peritoneum pearly white and moist; no effusion within its cavity. Intestines moderately distended, of a dirty yellow color externally; not injected. The liver extends one inch below the false ribs, its anterior margin meeting the cartilages of the ribs one inch and a half to left of sternum; inferiorly it extends to within an inch of the crista of the ileum; mesentery not injected, containing a quantity of fat between its folds; mesenteric glands not enlarged, the largest being about the size of peas, of a light pink externally, tissue firm: pale, not tuberculous. Stomach of moderate size, containing a quantity of dark inodorous fluid, of the consistence of gruel. Mucous membrane for the most part pale, with several aborizations upon its surface; most distinct along the lesser curvature; consistence normal, strips of an inch in length being obtained along the lesser curvature, and three or four lines in the great cul-de-sac. Duodenum pale, except in a space three inches in extent from the pyloric orifice of the stomach, where it is uniformly of a red colour; the surface rendered uneven to the touch by the presence of numerous enlarged muciparous glands. It contains a quantity of orange-coloured matter of the consistence of thin paste; mucous membrane of jejunum, pale, and of good consistence, yielding strips four or five lines in length; contents of a light yellow colour tinged with green in its lower half. Mucous membrane of ileum pale, consistence normal, strips obtained of same length as in jejunum; plaques of Peyer distinct, but not unusually developed; not tuberculous.

Large intestine. Mucous membrane of a rosy hue, with slight aborizations in patches, consistence healthy; a few small granulations

are seen beneath its peritoneal covering. *Kidneys* rather large, three and a half inches in length, one and a half in breadth. Cortical substance light ash-colour. Tubular pale violet, not injected; tissue firm. *Spleen* three inches in length; breadth two inches, of a pale violet externally. Numerous tubercles are found beneath its peritoneal coat and imbedded in its substance. Tissue remarkably firm. The liver measures six inches transversely; longitudinally four and a half; two and a quarter in thickness. Convex surface, pale violet, mottled with yellow; numerous small granulations are seen upon its surface, more abundant in the lesser lobe; under surface of same colour, studded in like manner, with small granulations; tissue firm; pale reddish, not engorged; two substances quite distinct. Gall bladder moderately distended with greenish bile of the consistence of thin syrup, staining paper Indian yellow. Bladder moderately distended; mucous membrane pale, uterus and appendages healthy.

Recapitulation. A child aged two years and three months, of slender habit; born of healthy, but somewhat emaciated parents; is attacked with measles. This attack is succeeded after a short interval, by one of bronchitis, of six weeks duration; the cough, which existed during the measles having never, altogether, ceased. Recovering from it, it is found that the child has lost flesh, and has a short dry cough, which was not noticed before. These symptoms continue during a space of fifteen months, when remittent fever prevailing to a great extent, it is attacked with that disease; the physical signs of bronchitis, however, exist in a marked degree, and continue during the whole course of the affection. Two months after recovery from this attack, which lasted a month, it is seized, for the first time, and suddenly, with symptoms of meningitis; the most prominent and characteristic of these signs, are severe pain in the head and vomiting. The pain in the head continues to increase; slight twitchings of the limbs are noticed, followed by strabismus. To these symptoms succeed coma, which takes place one week after the commencement of the disease. The following day slight convulsive movements of the left arm are observed: these are somewhat increased on the succeeding day, when the right arm becomes rigid. There is also rigidity of the left ankle joint; the respiration on this and the preceding day, is found to be rude over the whole of the chest, and there is more or less dullness on percussion. These symptoms are followed by a slight amendment, and death finally ensues, in about ten days from the time when she first complained of severe pain in the head. The autopsy displays the existence of extensive tuberculous disease. Tubercles are found throughout the lungs, the tissue of which, with the exception of the middle lobe of the right, is red and firmer than natural, but still crepitant to a certain degree. They are found deposited in great abundance, not only in their tissue, but upon the surface beneath the pulmonary pleura, and also beneath the pleura, lining the ribs, but to a small extent. The pleura in neither

of these situations, exhibits any signs of inflammation, except upon the opposing surfaces of the upper and middle lobes of the right lung which are adherent. The bronchial glands are much enlarged and tuberculous. Tubercles are also found beneath the peritoneal investment of the liver, which presents no sign of inflammation. They are deposited beneath the peritoneal coat of the spleen, and imbedded in its substance: they are found also in the sub-peritoneal tissue of the large intestine, to a limited extent. In the brain they are seen beneath the arachnoid, both upon its convex surface and base; they exist also beneath the arachnoid lining the dura mater, where they are few in number, and isolated for the most part. The arachnoid, in the latter situation presents its natural appearance, being perfectly pale, and not in the least altered in structure. No trace of inflammation is observed around the granulations, or in their vicinity.—The arachnoid of the brain is opaque, owing to the deposit of a milky fluid in the cellular tissue beneath; but is not evidently thickened. The pia mater is greatly injected; less upon the base, where the tubercles are less abundant, but to a much greater degree where the deposit is extensive viz: In the left fissure of Silvius; on the surface of the anterior and middle lobes of left side, and more especially on the inner surface of the left hemisphere, and on the convex surface of the posterior lobe of the right. The substance of the brain is healthy.

Case II.—Ann Eliza B—, ætat 7 years, with light blue hair, blue eyes, delicate from infancy, enjoyed good health until the age of fourteen months when she had an attack of summer complaint with bloody stools which lasted from May until the latter part of August. Two years after recovery from the summer complaint she had intermittent fever of three weeks duration, for which she took jalap and quinine. She subsequently (about a year after) had the varioloid. About two years and a half ago, she was seized with pleurisy, for which she was under medical treatment four weeks; it was attended with slight cerebral disturbance, requiring the use of cold applications to the head; during convalescence she complained of pain in the right knee, and shortly after of pain in the hip of the same side; she was able, however, to go to school, and even to run about and play as other children; the pain in the knee was at times severe; on these occasions she was observed to flex the joint, drawing the foot under the chair on which she happened to be seated; if erect, she would rest the limb upon the toes; the pain often lasted half an hour or more, and would then pass off, when she would go about as usual; occasionally she remained at home a day or two. I saw her the first time in May, 1838; she was then cupped and purged with jalap and cream of tartar, and the limb was kept at rest; under this treatment she improved, and it was recommended to the parents of the child, to have the limb put in a carved splint; this they were not disposed

to do, and I afterwards learned that she was again sent to school, where she continued to go until October. During the whole of this period, she was not observed to place her heel upon the ground.—Fourteen months ago, she had an attack of hooping cough of moderate severity; it lasted all summer, and left her with a short dry cough; while at school she received a fall upon the hip, after which she became much worse; the pain in the hip was greatly increased, and she was no longer able to leave the house; she first complained of pain in her head about four months ago, and the intimate connection which appears to have existed between the pain in the hip, and that of the head is worthy of remark. Her cries from the former were at times acute, and invariably followed by some expression indicative of pain in the head. Her mother states that she does not remember a single instance, in which the pain in the joint was severe, that she did not at the same time complain of pain in the head. Since her confinement to the house, she has been until within a short period, under the care of an empiric, who gave it as his opinion that the disease was of a neuralgic character. On Thursday five weeks ago, she had an attack of convulsions, which affected the whole body; it lasted from half-past ten in the morning, until three in the afternoon. She complained more of her head after the attack, but appeared quite sensible, and went about the house in her usual manner. For several months past her sleep at night has been much disturbed, the pain in the hip being often so great as to cause her to cry out; she has also had more or less fever coming on every evening; the attacks of pain continued to increase in frequency, until Wednesday, April 30th, when she was seized with a chill in the morning, followed by high fever and vomiting; the vomiting occurred four or five times on Wednesday and Thursday, but less often on the following days, at the expiration of which it ceased; during this time she complained much of her head, putting her hands often to the forehead; on Friday morning, May 2d, she had several attacks of convulsions, the left arm and leg being affected; they returned frequently on that day as they have every day since; the attendants state that she has not moved the left arm and leg since the day before yesterday; several days the right arm and leg have been much in motion, the leg much less than the arm. She screams frequently in the night; after screaming, she usually falls into a doze; until Wednesday she noticed objects, and recognised her parents. I saw her for the first time during her present illness, on Saturday, May 9th.

Present state. 1½ P. M. Decubitus dorsal, face inclined to right side, lids partly open, left rather more than right, about four lines apart, conjunctiva not injected; corner of right eye covered with a thin film; pupils greatly, but not unusually dilated, contracting slightly on exposure to light; sight destroyed; on passing a finger before the eye, and quite near to it, the lids are not closed; an orange moved

in the same direction, causes no change in the axis of vision; expression of eyes dull; screams frequent, hydrocephalic; asked if a person seated by her, is her mother, she replies no, and says go away in a mumbling tone of voice; when asked if her head aches, replies yes it does, and says my head aches, and my leg aches; when told to give her hand to the Doctor, she says, where is the Doctor; no wrinkles upon the face or forehead; cheeks not flushed; asks occasionally for drink; deglutition easy; right arm frequently in motion, the fingers often touching the nose and lips and angles of the mouth; joints of this extremity supple; shoulder and elbow joints of opposite extremities rigid; the flexors appear to be in a state of contraction, the arm being straightened with some difficulty; when extended, and suddenly let go, it returns to its former position by a sort of resiliency; there is slight motion of the arm and fingers; sensibility in left side obtuse; slight rigidity of left ankle joint; the other joints are supple; motion of the left lower extremity quite painful; any attempt to move it produces evident uneasiness, causing her to place the hand upon the hip; forehead moderately warm; cheeks rather cool; heat of body nearly uniform; warmer upon abdomen; pulse 120, regular, slightly tense, not intermittent; examined four minutes after, it is found to be irregular, and intermittent, beating one hundred strokes per minute; nostrils dry, slightly in motion; respirations 28 at first, afterwards 20; chest sounds well on percussion on both sides; respiration obscure, rather more distinct on left; marked dullness commences in the interspace between the seventh and eighth rib of the right side, and extends inferiorly as far as the lower margin of the ribs; impulse and sounds of heart normal; lips dry, incrusted; attempts to protrude the tongue on being asked to do so, but is unable; abdomen much retracted, not painful on pressure, bowels moved; as they have been every day, by injections of salt and water, and flaxseed and sweet oil.

10th. 10½ o'clock, A. M.—Had a severe convulsion in the night at half-past 11 o'clock; it lasted several minutes, and affected the whole body; since then has been unable to speak; immediately after the convulsion there was hemorrhage from the nose; the quantity of blood lost amounted to about a tablespoonful; bowels not disturbed since last visit. Present state: decubitus same as yesterday; heat of surface same. The mother states, that the skin became quite warm early in the morning, after which it was cool; eyelids equally separated, at times opens them widely; pupils equally dilated; strabismus of left eye, the ball being turned inward; conjunctiva not injected; a slight film on the right cornea; the finger placed repeatedly before the eyes and quite near to them produces no change in the position of the lids; when asked if she sees an orange placed before the eye she nods in the affirmative; if asked if she sees the apple, the orange being still held before the eye, she nods in like manner; her hearing does not appear to be in the least

degree impaired; deglutition much affected since the convulsion; she seems still to have a desire for drink, but there has been great difficulty in swallowing. Her mother states, that during the whole of her sickness she has been more or less thirsty, asking for drink about once every hour. No cries since convulsion, until this morning, during visit, when she was heard to utter one, but in a tone less sharp than yesterday; attempted once to speak, but the sounds of her voice were confused and indistinct; right arm much in motion as yesterday, at times convulsed; fingers flexed; no rigidity; motive power of left arm as last noted; the contraction of the flexor muscles does not appear to be permanent, for in two attempts made to extend the forearm, these muscles offered no resistance; has not been seen to move the left lower extremity, but when strongly pinched, the limb is slightly flexed; sensibility continues obtuse over the whole of the left side; moves the foot of the right leg, but the thigh and leg remain extended and appear stiff; no attempt has been made to move the joints from fear of giving pain; pulse more frequent, 135, small and regular, not intermittent, respiration 32, sighing; no cough; lips dry; teeth much encrusted with sordes; abdomen very slightly meteorized, not in the least painful on pressure; urine free, in the usual quantity, of a light colour without sediment.

℞. Blisters behind the ears, to be dressed with mercurial ointment.

Evening, 9½ o'clock, P. M.—At 2 o'clock had a convulsion which lasted ten or fifteen minutes, succeeded by two others at intervals of half an hour; the mouth was drawn aside and the muscles of the trunk and upper extremities were much affected; about an hour before the visit, she had a fourth convulsion of short duration, and less violent than the others; there appears to have been complete loss of intelligence from the time of the first convulsion; when questions are put to her, she takes no notice of them whatever; convulsive movements of both eyes, the balls being turned inwards; lids equally open; slight pink or rosy hue of conjunctiva; at inner canthus of left eye is a considerable quantity of whitish, frothy looking fluid; cornea of both eyes covered with a film of mucus; pupils equally dilated; they are not observed to contract on exposure to the light; right arm constantly in motion; fingers flexed; joints supple; left arm and lower extremities same as last noted; no motion of under jaw; no wrinkles upon face or forehead; no cries; skin much warmer than at morning visit; forehead moist; abdomen warmer than other parts of body; pulse much increased in frequency, 155, small, somewhat chorded, not intermittent; nostrils dilated at each inspiration; lining membrane quite dry and bloody; respiration 40, irregular, at times sighing; lips dry; abdomen a little more tense than at morning visit, not painful on pressure; bowels not disturbed; no vesication from blisters.

11th. 11 o'clock, A. M., (12th day.)—Had several convulsions in

the night, affecting both upper extremities, with deviation of the mouth to the right side, occurring at intervals of two or three hours. This morning there were two others, the first about nine, the second an hour after; these lasted about a minute each, and appear to have been of a tetanic character, the extensors being in a state of powerful contraction; perspired freely in the night, after which, return of fever; moves the right arm to-day much less than yesterday; rigidity of elbow and shoulder joints; slight rigidity of wrist; none of left upper extremity, which is now quite relaxed; lower extremities as last noted; great rigidity of neck, lower jaw rigid; the sensibility continues obtuse over whole of left side; convulsive movements of both eyes; no twitching of lids; conjunctiva injected; at the inner canthus of right is a quantity of yellowish albuminous matter floating in a thin whitish looking frothy fluid; utters occasionally a short moan, no cries; pupils same as last observed; slight warmth about forehead; cheeks cool; abdomen and other parts of body warmer than natural; pulse 160, quite small, regular, not intermittent; respiration 32, regular, no cough; very slight dullness on right side of chest anteriorly; none on left; respiration noisy, arising perhaps from the choked up condition of the nostrils, which appear filled with coagulated blood; respiratory murmur obscured, probably from same cause; tongue moist at tip, coated apparently with a viscous exudation, like the sordes on the teeth; the borders of the lips have a white furfuraceous appearance, as if dusted with fine flour; angles of lips bloody; emaciation rapidly progressing; eyes much sunken; angles of jaws prominent; bowels not disturbed.

Evening. 8 o'clock, P. M.—Has had several convulsions since 2 o'clock; they were of short duration, and similar to those last noted; the rigidity of the left elbow and shoulder joint appears to have returned to a certain extent, with slight contraction of the flexor muscles; conjunctiva more injected; lids of right eye about three lines apart, of left four; pupils dilated; oscillations distinct; coma profound; fever less than yesterday at same hour; forehead warm and moist, less warmth upon cheeks; abdomen hot, communicating a sense of burning warmth (calor mordax) to the hand; lower extremities warm; skin dry and harsh; pulse 170, quite small; respiration 45, irregular; bowels not disturbed.

12th. Died this morning at 2 o'clock.

Autopsy, May 13th, twenty-six hours after death, weather clear and dry.

Exterior. Body much emaciated; no enlargement of glands of neck; joints of upper extremities rigid; rigidity also of knee and ankle joints, and of left hip; hip joint of right side nearly supple; slight lividity of finger nails; lips livid; posterior parts of body mottled, from position; no œdema of upper or lower extremities.

Head. But little blood upon the outer surface of the dura mater;

the longitudinal sinus contains a moderate quantity of nearly liquid blood; veins of pia mater moderately distended; arachnoid pale and moist; there is a slight milky effusion beneath it, confined chiefly to the larger anfractuosities; pia mater highly injected over whole of convex surface of brain, the injection extending to the smallest ramifications of the vessels, forming minute arborizations over its entire surface; beneath the arachnoid at different points are numerous minute granulations, varying in size from that of a mustard seed to a line or more in diameter; but few of them are seen upon the surface of the anterior lobes; the interspaces between the convolutions being nearly pale; the granulations are situated for the most part in the anfractuosities between the convolutions following the course of the veins; they are most numerous upon the superior and lateral portions of the middle and proterior lobes; those in the left hemisphere are much larger than the rest, being about a line in diameter; they are of a whitish-yellow color, and are situated for the most part, near the point of junction between the middle and posterior lobes of that side, where they occupy a space several inches in extent. The pia mater surrounding them is highly injected, but not to a much greater extent than in several other portions of the brain, where they are less abundant and of smaller dimensions; hemispheres not adherent; no granulations upon their inner surface; pia mater readily removed from the surface of the brain, bringing with it the granulations which appear to be imbedded in its tissue. *Base* of brain very moderately injected; general aspect pale, contrasting strongly with the upper surface except along the anterior margin, where there are several patches of a bright red color; several of them are also seen upon the under surface of the middle and posterior lobe of the right hemisphere; the largest of them has the form of a crescentic band, twelve lines in length by three or four in breadth; a few minute granulations are noticed upon the under surface of the middle and posterior lobes; they are about the size of grains of mustard and are observed only in the anfractuosities; several of these granulations are also seen beneath the arachnoid lining the dura mater; the largest is about half a line in diameter; the arachnoid surrounding them is quite pale; the pia mater surrounding the optic nerves is somewhat opaque from infiltration of a milky fluid; the yellowish deposit so often met with in this spot does not exist; the olfactory nerves are apparently softer than natural; granulations numerous in the fissure of Silvius on both sides; much more abundant in left; they are not confined to the track of the vessels; the pia mater surrounding them is highly injected, but to a much greater extent in left. *Substance* of brain. Cortical substance pale ash-colour, about a line and a quarter in thickness, having a slight rosy tinge; medullary somewhat dotted; pale and firm; ventricles quite moist; a few vessels are seen ramifying upon their surface; they contain about an ounce of limpid serosity; corpora striata and thalami

nerv. optic. of natural firmness; septum lucidum and fornix healthy; foramen of monro large; pons and medulla oblongata healthy; no softening observable in any part of brain.

Neck. Pharynx pale; pouches of morgagni and other parts of larynx pale, except in parts where it is slightly injected; epiglottis pale; no ulcerations.

Thorax. Pleuræ pale, containing no serosity; left lung adherent posteriorly, right adherent throughout; the adhesions are easily separated; lungs of a violet color anteriorly, deeper along the posterior margin where there are some dark coloured spots; they extend inferiorly as far as the upper margin of the seventh rib; the inferior margin of the upper lobe of the left lung is on a line with the superior margin of the fifth rib; a few small granulations are noticed upon the outer surface of the upper lobe; lobes on both sides adherent; tissue of lungs imperfectly crepitant of a reddish brown color; inferior lobes engorged a quantity of dark coloured blood exuding on pressure; at first it was supposed that no granulations existed in the lungs, but on a more careful examination and with the aid of a glass, two or three were detected in the upper lobe of the right; they are about the size of pins heads and of a whitish yellow colour; none are observed in other parts of the lungs; mucous membrane of trachea and bronchi injected, the injection extending to the smaller ramifications; consistence of membrane, normal; to the right of the trachea about three quarters of an inch above the bifurcation is a bronchial gland which is tuberculous; several calcareous deposits are found in it, one of them two lines by three quarters of a line in size; the rest of the gland presents a somewhat granulated appearance; just below the bifurcation of the trachea is another ten lines by four and a half in dimension; a grating sensation is experienced on cutting into it; it is of a greenish yellow colour internally and of the consistence of cheese; in its centre is a band of whitish chalk-like matter; several small calcareous nodules are seen in other parts of the gland; in front of the right bronchus an inch or more below the bifurcation are two others presenting precisely the same characters; the larger of the two is six lines in length by four in breadth.

Heart. Pericardium pale and moist, containing a small quantity of limpid serosity; length of heart measured from root of aorta along its anterior face, following line of curvature three inches, circumference at base six inches, breadth posteriorly two and a half inches; walls of right ventricle a line in thickness, exclusive of columnæ carneæ; cavity of natural size; it contains a fibrinous coagulum, extending into the pulmonary artery, and through the right ostium venosum into the auricle to the sides of which it is attached; inferiorly it adheres to the columnæ carneæ of the ventricle and is slightly interwoven with the chordæ tendineæ of the tricus pid valve; it could have interfered but little with the action of the valve; walls of left ventricle four lines in thickness exclusive of columnæ carneæ; it con-

tains a little liquid blood; valves and orifices healthy; endocardium healthy; foramen ovale perfectly closed.

Abdomen. Peritoneum pale and moist; intestines moderately distended, of a dirty yellow colour. *Stomach* of natural size, pale externally; it contains a little fluid, without perceptible odour; its inner surface is coated with a layer of yellowish mucus easily removed with the handle of the scalpel; mucous membrane of a pale onion tint, with no arborizations upon any part of its surface; five or six whitish bands are observed at the greater extremity each about a line and a half in breadth; they run in a transverse direction and are parallel to each other; the entire thickness of the coats of the stomach is less in this than in other parts of the organ; on holding it up to the light, its whole surface appears studded with follicles about the size of grains of mustard, much less distinct near the pyloric orifice; they are not elevated above the surrounding surface of the mucous membrane, and have no opaque central point; along the greater curvature near its middle and upon the anterior and posterior faces of the stomach are several reddish slightly elevated bands which give to the membrane a somewhat mammelonated appearance; is this redness the result of imbibition? *Consistence of mucous membrane.* Strips an inch or more in length are obtained along the lesser curvature, and five or six along the greater; in the great cul-de-sac the mucous membrane is evidently thinner than in other portions of the stomach, yielding strips three or four lines in length; the duodenum contains a quantity of yellowish matter becoming greenish at its lower part; the same greenish appearance exists throughout the jejunum and ileum, becoming almost black towards the inferior extremity of the latter; the mucous membrane of the small intestine is pale in the jejunum, but in the ileum is more or less stained by its dark coloured contents; there is a slight ecchymosis near the upper extremity of the duodenum; the isolated follicles of the small intestine are quite distinct, but not remarkably developed; they have a whitish appearance, and in the jejunum are seen to occupy both the surface of the valvular conniventes and the interspaces between them; their central point is scarcely visible, but may be seen on a close examination. The *large intestine* contains a very considerable quantity of fœces of a light yellow colour; the mucous membrane is pale except in the lower part of the intestine where it is of a light rosy hue; the mucous follicles are quite distinct, but not elevated above the surrounding surface; the largest are about three-fourths of a line in diameter, and each has a dark point in its centre; the mucous membrane both of the small and large intestine appears somewhat softened; the former yielding strips of three lines, the latter of four and five lines in length; no tuberculous deposit is observed in any part of it; mesenteric glands somewhat enlarged, pale and firm, not tuberculous; the largest is about ten lines in length. *Liver,* pale chocolate colour

externally, marbled with yellow, not extending below the margin of the ribs; under surface presenting the same appearance, except along its anterior margin where it is of a slate colour; it measures eight inches transversely; six antero-posteriorly; transverse measurement of right lobe four and a half inches; gall-bladder much distended with thin dark coloured bile, staining the finger Indian yellow; tissue firm, of a reddish violet colour somewhat engorged; the two substances are quite distinct, the acimi appearing somewhat enlarged; no tubercles. *Spleen* of a bluish slate colour externally, three inches in length by two in breadth, not tuberculous. *Left* kidney four inches in length by two in breadth; its external surface is reddish violet with numerous yellow points; cortical substance from a line and a half to two lines or more in depth; numerous reddish striæ are observed upon its cut surface, running from the circumference towards the tubular portion of the kidney; the right kidney presents the same appearance, but is not so large as the left; it is three inches and a quarter in length. *Bladder* contracted, containing a small quantity of whitish coloured urine; mucous membrane for the most part pale, presenting a few slight arborizations; consistence of membrane normal. *Uterus* and its appendages healthy. *Pancreas*, healthy. *Hip joint.* A considerable quantity of whitish curdled matter is found to escape on cutting into the cavity of the hip joint of the right side; the synovial membrane is pale but thickened; a false membrane exists upon its surface about a fourth of a line in thickness; the cartilage covering the head of the bone is ulcerated, and the bone beneath more or less exposed; the remaining portion of the cartilage is but loosely attached to the parts beneath; the head and greater part of the neck of the bone is carious; on the inner side of the lesser trochanter, and a little below it, is a small opening, giving issue on pressure, to the same whitish matter observed on cutting into the joint; it communicates with a large cavity, which appears to have been filled with this matter, and with loose portions of carious bone; on passing a probe into it, the outer portion of the shaft of the bone, in a space three-fourths of an inch below the trochanter, as well as a considerable part of the head and neck of the bone, are found to be completely destroyed; the cartilage lining the acetabulum is more or less eroded, but the bone itself presents its natural conformation; no trace is observed of the round ligament. The muscles, and other parts surrounding the joint appear healthy.

Recapitulation. A child aged 7 years, delicate from infancy, enjoys good health until the age of fourteen months, when she has an attack of summer complaint, with bloody stools lasting three months; two years after, she has an attack of intermittent fever, of three weeks duration, and in about a year after is affected with varioloid. At the age of four years and a half, she has an attack of pleurisy, for which she is under medical treatment four weeks; during con-

valescence she is observed to complain of pain in her knee, and shortly after of pain in the hip of the same side; the pain in the knee is intermittent; when severe she is observed to flex the joint, drawing the foot under her chair, and if erect, to rest the limb upon the toes; in the intervals of the attacks of pain, she is able to run about as usual. No treatment is pursued during a space of six months from the first appearance of these symptoms; at the expiration of this time, advice is had, when cups are applied to the hip joint, which is kept at rest, and she is actively purged with cream of tartar and jalap; this treatment is pursued about a month, when it is proposed to put the limb in a carved splint; this however is not done, but she is again sent to school, the flexed position of the limb being now constant; she continues at school during a space of fifteen months.—When nearly six years old she has an attack of hooping cough; it continues during the summer months, and leaves her with a short, dry cough, which was not noticed previously. When at school in the autumn of 1839 she receives a fall upon the hip, after which the pain is greatly increased, and she is no longer able to leave the house. Three months after this accident, or about four months before her death, she is first observed to complain of pain in her head; the pain at times is acute, and is most severe during the paroxysms of pain in the joint. Forty days before her death, she has for the first time an attack of convulsions lasting several hours and affecting the whole body; the pain in the head is increased after this attack, but there is no marked disturbance of the cerebral functions, and she is able to go about the house in her usual manner. For several months her sleep at night is much disturbed, and she has more or less fever every evening; the pain in the hip continues to increase until Wednesday, April 30th, when she is seized with a chill in the morning, followed by high fever and vomiting; the vomiting occurs four or five times on the two first, but less often on the two following days, at the expiration of which it ceases. Three days after the invasion of this attack, she is seized with convulsions, the left arm and leg being affected; the convulsions return at intervals on that and the ten following days, or up to the time of her death; on the 7th, the left arm and leg are observed to be paralyzed, the opposite extremity on the contrary, being much in motion; during the first week of the attack, she takes notice of surrounding objects, and recognises her parents; on the 9th there is complete loss of the power of vision, which was probably the case for several days before; the hearing, however, is acute, and she replies correctly to questions that are put to her; her articulation is indistinct; but the power of deglutition is not impaired; the left shoulder and elbow joints are rigid, and the flexor muscles in a state of strong contraction; the sensibility of the left side is obtuse, and there is a slight rigidity of the left ankle joint; the other joints are supple; the pulse is frequent, irregular and intermittent; the respiration accelerated, the bowels costive; in the night

she has a strong convulsion lasting several minutes, and affecting the whole body, followed by hemorrhage from the nose, after which she is unable to speak, and the power of deglutition is much impaired; the cries are less frequent, the stupor constant; on the following day, she has repeated attacks of convulsions, occurring at short intervals; after the first of these, the intelligence appears to have been completely destroyed; when questions are put to her, she takes no notice of them whatever; there is strabismus of both eyes; and the pulse and respiration are increased in frequency; the convulsions on the eleventh assume a tetanic character, the extensors of the upper extremities being thrown into a state of powerful contraction; the motions of the right arm are less frequent, its joints having become rigid, and there is a return of rigidity in the left shoulder and elbow joints, with slight contraction of the muscles; the neck and lower jaw are also rigid; the pulse continues to increase in frequency and is diminished in volume; there is marked oscillation of the pupils; coma profound; the bowels continue costive. Death ensues on the 12th, thirteen days from the commencement of the acute attack, characterized by fever, pain in the head, and vomiting. The autopsy presents the following lesions. The pia mater of the convexity of the brain is highly injected, the injection extending to the minutest ramifications; the arachnoid is pale, and the sub-cellular tissue is slightly infiltrated with a milky serum; beneath it, and apparently imbedded in the pia mater, are numerous granulations, varying in size from of mustard seed to a line or more in diameter; they are more abundant, and of larger size upon the surface of the middle and posterior lobes near their point of contact; but few are seen upon the anterior lobes, where the injection is also less marked; at the base they are found abundantly in the fissures of Silvius, to a greater extent in the left than in the right, and a few are seen upon the under surface of the middle and posterior lobes, and also beneath the arachnoid lining the dura mater; the base of the brain is but little injected; the pia mater surrounding the optic nerves, is opaque from infiltration, of a milky fluid in its tissue; the substance of the brain is somewhat injected; its consistence is normal throughout; the ventricles contain about an ounce of limpid serum. The lungs are slightly engorged, and with the exception of two very small granulations in the upper lobe of the right side, contain no tubercles; a few granulations are noticed upon the surface of the right pleura, which is adherent throughout. The bronchial glands are tuberculous, and contain a quantity of calcareous matter. The coats of the stomach present a remarkable thinness in its great cul-de-sac, and the mucous follicles are unusually developed; the consistence of the mucous membrane is diminished in the thinned portion, and there is also some softening of the lining membrane of both the small and large intestines; the mucous crypts are likewise very apparent. The mesenteric glands are enlarged but not tuberculous; the bladder con-

tains a quantity of whitish coloured urine, and its lining membrane is slightly injected and thrown into folds. The *Liver, Spleen, Pancreas and Uterus* are healthy.

Stated Meeting, February 2d, 1847.

Dr. Hewson, President, in the chair.

Present, twenty members.

The Committee on By-Laws was continued.

It was *Resolved*, That the books belonging to the Medical Society, be entered upon the Catalogues of the College Library, with some appropriate mark after their titles, to distinguish them from the books belonging to the latter.

On motion, Drs. Moore and Condie were added to the Library Committee, to assist in carrying into effect the said resolution.

Dr. Moore presented and read the Annual Report on Meteorology and Epidemics, for 1846, as follows:—

State of the Weather.

In *January* at no period was the cold intense. The lowest degree of heat noticed before sunrise was 13°, and the highest temperature observed was 48°. The mean of the observations taken in the morning, gives a temperature of 30°. At mid-day the thermometer ranged from 19° to 58°, and the mean temperature for this portion of the day was 39°. Taking the mean of the observations in the morning, and in the warmest part of the day the temperature was 34°. The greatest diurnal range of the thermometer was 20°, and the mean for the month 8°. The barometer ranged from 29.5 inches to 30.3 inches. For eight days there was uninterrupted frost. At fourteen observations the wind blew from the north of east, at three from the south of east, at twelve from the south of west, while thirty-two observations indicated the wind as coming from the north of west. On six days the sky was without a cloud, and on the like number it was completely overcast; for nineteen days the weather was variable; on six days there was rain. On the 16th, after a drizzly morning, it snowed in the afternoon to the depth of three inches and a half. Three inches of snow fell on the 21st, and a

slight spitting of snow was observed on the 29th; the rain and snow when melted measured 4.380 inches.

In *February* the mean temperature before sunrise was 26°, and the extremes observed at this hour were 38°, and 8°, on the 4th and 27th, in the order expressed. At mid-day the extremes of heat observed were 53° and 16°, and the mean temperature was 30°. For the month the mean heat was 28°. The greatest diurnal range of the thermometer was 22°, and the mean was 7°. The barometer ranged from 29.4 inches to 30.1 inches. From the north of east the wind was noticed at fifteen observations; only on one occasion was it observed to come from the south of east. At eleven observations the wind was from the south of west, and at twenty it was seen to come from the north of west. Five days were without a cloud, eighteen were variable, and five were cloudy. Some snow was noticed on the 6th. Two inches of snow were measured on the 13th, and a little snow fell on the 15th, but it was soon melted by the moisture of the ground, occasioned by the rain which had fallen early in the morning. On the 19th snow fell to the depth of four inches, and on the last of the month there was an additional quantity of three inches. The melted snow with the rain measured 2.732 inches.

March came in cold, 16° being the temperature observed on the morning of the 1st. In the course of the day the thermometer did not rise above 24°. On the succeeding day the range of the instrument was from 17° to 26°. On the 25th at mid-day the thermometer rose to 62°, the highest temperature noticed during the month. The mean degree of heat in the mornings was 38°, while the mean temperature at mid-day was 49°. The mean of the observations throughout the month indicates a temperature of 44°. The greatest diurnal range was 30°, and the mean range was 11°. Fourteen observations indicated the wind from the north of east, five from the south of east, fourteen from the south of west, and twenty-nine from the north of west. There were three cloudless days; twenty-three were variable, and five when the weather was cloudy; rain fell on eight days, and once it snowed. The melted snow with the rain measured 4.805 inches. The barometer ranged from 29.4 inches to 30.2 inches.

April was free from frost. The lowest temperature observed in the morning was 34°, and the highest 60°. The mean degree of heat for this portion of the day was 46°. At mid-day the extremes were 44° and 82°, on the 13th and 21st respectively, and the average degree of heat in the warmest part of the day was 61°. According to the observations taken in the morning and the middle of the day, the mean temperature for the month was 53°. The greatest diurnal range observed was 33°, and 16° constituted the mean difference between the morning and the mid-day observations. The range of the barometer was from 29.5 inches to 30.5 inches. The observa-

tions of the wind were, fourteen from the north of east, twelve from the south of east, nineteen from the south of west, and from the north of west, sixteen. Northerly and southerly winds were equally balanced; but from the west the wind prevailed more than from the east. The number of cloudless days was six; nineteen days were variable, and there were four cloudy days. On four days it rained to the amount of 2.075 inches. On the 29th the rain was accompanied by lightning and thunder.

In *May* the mean degree of heat was 64°. The extremes observed before sunrise were 42° and 70°; and the mean temperature at this hour was 57°. At mid-day the extremes were 85° and 54°, and the mean temperature for this portion of the day was 72°. The greatest diurnal range of the thermometer was 26°, and its mean range was 10°. The extremes observed in the barometer were 29.8 inches and 30.1 inches. The register of the wind indicated seventeen observations from the north of east; nine from the south of east; eighteen from the south of west, and the like number from the north of west. There was one cloudless day. The variable days were twenty-two. On eight days the sky was cloudy; on thirteen days there was rain, which measured 3.183 inches. On the 9th, 23d, and 25th the showers were accompanied by lightning and thunder.

June. On the 5th the wind blew from the south-south-east, and on the 19th from south of west, the degree of heat was 72° before sunrise. On the 23d, with a strong north-wester, the thermometer was at 52°. The mean temperature before sunrise was 62°. At mid-day the highest degree of heat observed was 88°, the wind blowing from the south-west, this was on the 19th. On the 21st, at mid-day, the wind blowing from the north-north-west, the thermometer stood at 62°. The mean temperature in the middle of the day was 75°. For the month the mean degree of heat was 68°. The greatest diurnal range was 24°, and the mean was 12°. The extremes indicated by the barometer were 29.8 inches and 30.4 inches. The observations of the wind were, thirteen from the north of east, sixteen from the south of east, thirteen from the south of west, eighteen from the north of west. Only one cloudless day was observed. Twenty-one days were variable, and eight were cloudy. On ten days the earth was refreshed with showers. The rain on the 19th was accompanied by lightning and thunder. The rain measured 3.410 inches.

July is usually the season of oppressive heat. It did not abate of this character, as the mean temperature before sunrise was 71°. On the 11th, 12th and 31st, the thermometer stood at 78°, before sunrise. At mid-day, the mean temperature was 83°, and the extremes were 96° and 62°. The mean degree of heat during the month was 77°. The diurnal range of the thermometer was from 2° to 21°, with a mean of 12°. The extreme points at which the mercury stood in the barometer were 29.6 inches and 36 inches.

There were fourteen observations of the wind from the north of east, ten from the south of east, eighteen from the south of west, and twenty from the north of west. There was not one cloudless day. Twenty-five days were variable: six were cloudy. On eleven days it rained. The rain guage indicated the amount to have been 3.847 inches, of which 1.530 inches fell on the 22d.

August presented less vicissitude of temperature than usually characterizes the month. The mean degree of heat observed in the morning was 70°, and the extremes were 77° and 60°. In the middle of the day 90° and 67° were the extremes noticed, and the mean of the observations at this period of the day was 80°. During the month the mean temperature was 75°. The gusts which occurred were not accompanied by the remarkable depression of the thermometer so frequently observed at this season of the year. The lowest diurnal range was 4°, and the highest was 22°. The mean of the observations was 12°. The lowest point at which the mercury in the barometer stood was 29.7 inches and the highest was 30.1 inches. The direction of the wind at twenty-one observations was from the north of east, at eight from the south of east, at sixteen from the south of west, and at seventeen from the north of west. There were three cloudless days. The variable days were twenty-five, and on six days the sky was covered with clouds. On twelve days it rained; what fell on the 8th, 9th, and 11th measured 1.560 inches; this, with what was collected on the other days, amounted to 3.847 inches. On the morning of the 9th, there was a heavy squall with sharp lightning and severe claps of thunder, occasioning much damage, and some persons were injured by the lightning.

September proved remarkably warm; the first week presenting a greater degree of heat than was noticed during the same number of successive days in any other portion of the year. The mean temperature before sunrise was 75°. On the morning of the 2d, the thermometer was at 71°, and on the 7th at 78.° At mid-day on the 5th and 6th, the thermometer rose to 90°, the wind being from the south of west, and the sky more or less veiled with clouds during this period. The lowest temperature observed in the month was 49°, on the morning of the 30th. The lowest temperature at mid-day was 64°, there being an easterly wind with rain. The highest diurnal range of the thermometer was 21° and the mean 12°. The extreme points at which the mercury stood in the barometer were 29.7 inches and 30.3 inches. Thirteen observations indicated the wind to be from the north of east, blowing a heavy gale on the 9th, 10th, 11th and 12th, causing great damage. On five days the wind was from the south of east; on twenty-three it blew from the south of west, and on nineteen from the north of west. There were five cloudless days, twenty-three were variable, and two were cloudy. On four days there was rain, measuring only .209 inches. The air was exceedingly dry, there being continual evaporation, except on the 1st and 23d.

October, in point of temperature, was very mild and pleasant. The mean degree of heat before sunrise was 48°. The greatest elevation observed was 63°, the wind blowing from the south-east with rain. The coldest morning was on the 23d, when the thermometer had sunk to 34°; on this day ice was observed on the skirts of the city where the buildings were scattered. On the 9th, the thermometer rose to 79°, with a variable sky, and an easterly wind. The lowest degree of heat at mid-day was 43°, this happened on the 18th, the wind being from the north-east, with rain. The mean temperature of the month was 53°. The greatest diurnal range was 22°, and the mean diurnal range was 14°. The mercury in the barometer varied from 29.8 inches to 30.6 inches. Westerly winds prevailed; twenty-four observations indicated the course to be from the north of west, twenty from the south of west, five from the south of east, and thirteen from the north of east. Seven days were without a cloud; on three of the mornings there was a light fog. Twenty-one days were variable, and three days were marked as cloudy. Rain fell on four days; it measured 1.966 inches. During the storm of the 13th, many trees were destroyed, and the roof was torn off some of the houses.

November was cold and wet, there having been no less than fourteen days when it rained, and on the 25th and 27th a little snow fell. The rain, with the small portion of snow, when melted, measured 7.793 inches. At seventeen observations the wind was from the north of east, at sixteen from the south of east, at six from the south of west, and at twenty-one from the north of west. Not a cloudless day was noticed. On sixteen days the weather was variable, and on fourteen days the sky was completely clouded over. In the morning, before sunrise, the highest temperature observed was 64°, this was on the 4th. The greatest cold observed was on the 26th and 27th, when the thermometer stood at 26° and 25°. The mean temperature before sunrise was 47°. In the middle of the day the extremes were 70° and 34°, the former on the 5th of the month, and the latter on the 26th and 27th. The mean degree of heat for the month was 50°. The mean diurnal range of the thermometer was 6°, and the greatest was 17°. The barometer ranged from 29.2 inches to 30.5 inches.

December was remarkable for the even temperature that prevailed throughout the month. The lowest degree of heat observed before sunrise was 22°, and the greatest elevation, in the morning, was 60°. This happened on the 3d, about nine o'clock, A. M., but it soon fell to 52°. At no period of the month did the thermometer rise higher than 60°. The mean degree of heat during the month was 36°. The greatest diurnal range was 12°, and the mean was 5°. The range of the barometer was 29.7 inches and 30.7 inches. Nine observations gave the wind from the north of east, the like number from the south of east, fourteen from the south of west, and thirty from the north of west. The number of cloudless days was four, of variable

days sixteen, of cloudy days eleven. On six days it rained; on the 1st there was a slight fall of snow; on the 7th there were three inches of snow; and on the 17th the wind being very boisterous, the snow which fell was so drifted as to preclude the possibility of ascertaining the depth. The rain with the melted snow amounted to 3.451 inches.

SUMMARY OF METEOROLOGICAL OBSERVATIONS, FOR 1846.

Year 1846.	TEMPERATURE.			RANGE.		DEW POINT.			BAROMETER.		WIND.					WEATHER.				RAIN AND MELTED SNOW IN INCHES.
											No. obs. in which wind blew.					Days that were			Days of	
	Highest.	Lowest.	Mean.	Highest.	Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	North of East.	South of East.	South of West.	North of West.		Clear.	Variable.	Cloudy.	Rain.	Snow.	
January ..	58	13	34	20	8	54	4	27	30.3	29.5	14	3	12	32		6	19	6	6	4	4.380
February..	53	8	30	22	7	39	—	21	30.4	29.	15	1	11	29		5	18	5	3	7	2.732
March....	68	16	43	22	12	59	8	30	30.3	29.4	14	5	14	29		3	23	5	5	1	4.805
April	82	34	53	33	15	59	20	39	30.5	29.5	14	12	19	15		6	19	5	4	1	2.075
May	85	42	64	26	13	67	27	55	30.1	29.8	17	9	18	18		1	22	8	12	—	3.153
June.....	88	52	69	24	12	69	48	57	30.4	29.8	13	16	13	18		1	21	8	10	—	3.410
July.....	96	56	75	21	12	75	38	65	30.1	29.7	14	10	18	20		—	25	6	11	—	3.847
August ...	90	60	75	22	12	75	49	65	30.1	29.7	21	8	16	17		3	22	6	13	—	3.864
September.	90	49	71	21	13	75	36	59	30.3	29.7	13	5	23	19		5	23	2	4	—	.209
October....	79	34	55	22	14	67	22	43	30.6	29.2	13	5	20	24		3	24	4	4	—	1.966
November.	70	23	50	17	6	67	11	41	30.5	29.2	17	16	6	21		—	16	14	14	2	7.798
December .	60	22	36	12	5	60	5	25	30.7	29.7	9	9	14	30		4	16	11	6	3	3.451
Total...	—	—	55	—	11	—	—	44	—	—	174	99	234	262		35	248	80	92	18	41.680

Prevailing Diseases.

In the sketch of the diseases which prevailed in 1845, some notice was given of the ravages committed by the small-pox, particularly as observed at the close of the year. In the succeeding January, this malady had not abated in any degree of its malignancy; for, in the list of interments for the month, no less than one hundred deaths are referred to this source. Thirty-three of these were in persons of adult age. In February, thirty-eight children, and nine adults fell victims to the disease. In March the number of deaths from small-pox is reduced to thirty-eight; of these thirty are stated to have occurred in children, or in persons under adult age. In April the disease proved fatal to twenty-two children, and to five grown persons. In May the mortality from small-pox was diminished, as the death of twenty-three children, and of seven adults is referred to this source. In June only three persons under adult age, are reported to have died of small-pox. In July four children were cut off by this disease. From this period, small-pox ceased to be noticed in the weekly list of interments. Of the adults who suffered from the disease, the majority were foreigners, and of the natives very few were Philadelphians by birth. Negroes and persons born at a distance from the towns, and thrown out of the sphere of medical attention, so as not to receive the benefits of vaccination, constituted that portion of the native population, on whom the disease was observed to exert its baneful influence.

Within the limits of the city proper, not a case of measles has been traced. Nevertheless, one death from this disease, was recorded in January. After a considerable lapse of time, in June, the malady proved fatal to one child, and in July an additional death is recorded. According to the information received by application at the office of the Board of Health, these cases of death were reported by physicians residing in the districts north of the city. In November another death from measles was reported. To these must be added the death of a child recorded in December.

The lichen tropicus proved very severe, and obstinate during the heat of summer. The other forms of lichen, as the agrius, and circumscriptus, were confined to no season of the year. In recent cases great advantage was derived from the application of the juice of the common lettuce to the affected part. Where the affection of the skin was of long standing, and in elderly people, it too often baffled all efforts to afford relief.

In the report on the diseases which prevailed in 1844, some allusion was made to the soreness of throat, and difficulty in swallowing; then occasionally noticed in connection with erysipelas. The affection of the throat was among the earliest symptoms that attracted attention, and preceded the appearance of any inflammation on the

skin. The complaint then observed in the throat was supposed to be accidental, and the general train of symptoms under which the system laboured, was referred to that disturbance which is usually experienced by persons affected with erysipelas. During the past season the affection of the throat assumed a more prominent character, and became the object of particular solicitude and attention. In illustration of this association of apparently two distinct diseases, the following case is subjoined.

A married woman aged between twenty and thirty years, of fair complexion, and previously in the enjoyment of good health, was exposed to the rain at the period of her menses. On the succeeding day, the 28th of May, the catamenia ceased and she became indisposed. She was affected with soreness of throat and difficult deglutition, she had severe rigors, soon succeeded by the ordinary symptoms of fever. On the morning of the 31st, an erysipelatous blush appeared on the left cheek, at which the husband took alarm, and requested medical assistance. In visiting the patient, the inflammation was such as is observed in the incipient stage of the disease; the ear was red and somewhat swollen, a slight blush extended over the cheek towards the verge of the eye-lids; these had become puffy but were not closed. She complained of head-ache, soreness of throat, and of pain in her back and limbs. She had considerable thirst, and some degree of nausea. Her tongue was furred; but the condition of the fauces could not be ascertained, as the pain and difficulty of opening her mouth rendered the inspection impracticable. Her bowels were confined. There was great heat of skin. The pulse beat 100 strokes in the minute; the pulsation was strong and full. She was directed to lose ʒ xiv of blood from the arm, and to take every two hours a table-spoonful of a mixture, composed of sulphate of potassa ʒ ij, of tartarite of antimony and potassa gr. ss, dissolved in water ʒ iijss, to which were added lemon juice ʒss, and sugar ʒss. She was allowed a liberal use of cold water to allay her thirst; and for food nothing more nutritious than barley water, and the like; in the evening visit the blood was observed to have a slight greenish film on the upper surface. The coagulum was firm and voluminous.—Some degree of vomiting had been excited. The discharge was tinged with bile. Her bowels had likewise been opened. The force and frequency of the pulse was somewhat reduced; and the heat of skin was diminished.

As the disease advanced the inflammation spread over the whole face; the eyelids were closed, the difficulty of swallowing was increased; the fever however had subsided, so that the farther abstraction of blood seemed not to be indicated.

On the evening of the 5th of June she had a considerable discharge from her throat. This was reserved and exhibited the next morning. One portion consisted of a tubular mass about an inch and a half in length, and in diameter somewhat less than an inch; there were

two other portions each about half an inch square. The consistence of this exudation was like that of the buffy coat of the blood, taken from persons affected with acute rheumatism, and was composed of fibrine entangling a large portion of serum.

After the discharge of this adventitious matter, she experienced less difficulty in swallowing; still there was great tenderness in the throat; the tongue and fauces were covered with a thick aphthous concretion resembling curdled milk. The inflammation had passed from the face, and now occupied the back of the neck; the pulse was small and wiry, and the heat and dryness of skin indicated the irritation under which the system was laboring. The nights were restless, and she was more or less delirious. A change in the treatment was obviously required. During the day she was directed to take ten drops of the solution of the chlorinate of soda in half an ounce of rose water, every three hours, as a corrective of the aphthous condition of the mouth and fauces, and with the intention likewise of imparting tone to the system. Every thing cool, when received in the mouth, having proved most grateful, she was indulged with ice cream, and all her drink was administered cold. In addition to the ice cream, her nourishment consisted of rice boiled to a jelly, and such soft farinaceous articles as might be most agreeable. To allay the delirium and to procure sleep, five grains of the compound powder of ipecacuanha were administered in the evening. This course was pursued until the close of the first week in June, at which period the aphthæ had disappeared, and the power of deglutition had greatly improved. She was now free from delirium, still her nights were restless; she was very weak and much emaciated; slight traces of erysipelatous inflammation were still perceptible down her back extending even to her hips. The lupulin was now substituted for the compound powder of ipecacuanha. Chicken broth, milk and chocolate were directed for her nourishment; she had expressed some desire for beer, this was accordingly allowed. To obviate costiveness it was necessary occasionally to administer small doses of rhubarb. By pursuing this treatment, at the close of June her convalescence was established.

When in febrile diseases the paroxysms are not observed, or are but indistinctly marked, the general term of continued fever has been usually applied. From the influence of the seasons, or from other circumstances affecting the system, considerable variety may be observed in the character and progress of the disease; hence the distinctions introduced by nosologists; these distinctions have been often drawn from some peculiar symptom, or a hypothetical condition of some portion of the animal economy, which future experience may demonstrate not to be correct. This has led to a frequent change of the terms employed; another source of embarrassment obtrudes itself by the different sense in which the same terms are occasionally applied to the peculiar forms of fever which the writer proposes to

designate. The fever, denominated typhus, as recognised by the physicians of Europe, prevails in the winter season; but in the weekly register of the interments for the city and liberties of Philadelphia, it might be inferred that the winter is not the season in which the disease is most frequently observed. There is, therefore, reason to believe that from the prostration of the vital powers which precedes the fatal termination of the ordinary fevers of our climate, the term typhus has been extended to fevers originally of a different character. Only three deaths from typhus are recorded prior to the month of July. In that month six persons are stated to have fallen victims to this form of fever; to these must be added ten as the number destroyed by it in the course of the succeeding months.

During the beginning of the year and before the arrival of spring, many persons were affected with intermittent fever, most frequently of the tertian form. These cases appeared to be instances of relapse that might be referred to the force of habit in persons who had labored under the disease during the preceding autumn, and who had neglected to adopt the measures necessary to prevent its return. In April, this form of fever was observed in persons not in this predicament, and in some individuals residing in the central parts of the city far removed from miasmatic influences, and who, it is believed, had not visited the districts where the usual causes of intermittent prevail. There seemed to be no indication for the abstraction of blood, so generally required in the treatment of vernal intermittents. After the exhibition of some active cathartic, the paroxysms were soon arrested by the administration of the sulphate of quinia, which, of late years, has in a great measure superseded all the other preparations of cinchona. In August, and during the autumnal months, intermittents again attracted attention; the disease was particularly noticed in what is termed the south-western portion of the city. The sections lying to the north and north-west appear to have been in a great measure exempt from this form of fever; though it was frequently observed in them during the autumn of 1845. The train of symptoms and the progress of the disease presented no other indications than those usually laid down as constituting the appropriate treatment in this form of fever. Experience points out the necessity of urging on the laboring classes particularly, how indispensable it is, that the use of the bark or of some of its preparations should be persisted in for three weeks, dating from the last paroxysm, with the view of preventing a relapse.

At the close of May, some cases of remittent fever were occasionally observed. In June this type attracted more attention. During the succeeding months of July, August and September, the cases became more numerous. In October, this form of fever gradually ceased to come under the notice of the practitioner. Rigor,

headache, nausea, and vomiting of bile, usually ushered in the disease. With the pyrexia that succeeded, the headache became more intense, the patients generally complaining of the pain being seated in the brow. Excruciating pain in the back and limbs were frequently felt in this stage, and often continued during the febrile condition of the system. Many of the sick were disposed to ascribe this distressing symptom to the position in bed. Great flushing of the face, the surface of the body being very hot, and the pulse at the wrist beating from 100 to 120 strokes in a minute were noticed as ordinary symptoms; with few exceptions the heat was equably diffused over the body and limbs. The nausea and vomiting of bilious matter often attended the whole course of the disease. The tongue was covered with a white fur; the thirst was urgent; the bowels were, for the most part, constipated; and the stools when procured dark and offensive. In favorable cases, the crisis generally took place on the fifth and ninth days of the disease. From the list of interments during the summer months, it may be inferred that where death occurred, the disease proved fatal by congestion of the brain. But such determination was more frequently observed after the middle of August and during the whole of September; in this latter period many patients were seen who, after suffering from excruciating pain in the head, became delirious, and at length comatose. Where the intellectual faculties were rendered obtuse, though not to the degree constituting coma, pain was referred to other parts of the body, especially to different regions of the abdomen; and yet the affection of any particular organ in that cavity could not be detected by the ordinary assemblages of symptoms; moreover, pressure afforded no evidence of any particular organ being implicated. These pains were observed to shift, and not to be confined to the part first indicated as the seat of distress.

In tracing the diseases constituting the subject of the annual reports presented by your committee, the treatment adopted has been occasionally noticed. In this they have been actuated by the desire of more distinctly marking the character of the disease, and of calling the attention of the profession to means that may be occasionally employed with advantage. They have likewise deemed it proper to make such remarks as experience dictated, in relation to certain remedies, lately brought before the public; but the scope of their observations has not afforded them the opportunity of presenting any thing of interest touching the treatment of the remittent fever, which prevailed during the period embraced in the present report.

Among adults the earliest notice of any death from fever, either bilious or remittent, was in July. Towards the close of August the death of four adults is attributed to this source. In September, the disease is stated to have been fatal to nine grown persons. The like number is recorded in October. In November, the deaths from this source were reduced to two.

The elevated temperature of the atmosphere which characterizes the summer months of this climate, has been long recognised as the principal cause of the cholera incident to children during the period of the first dentition. The last day in August and the eight days in the beginning of September, were unusually warm; the mean temperature was not surpassed by that observed in the same number of consecutive days in any other portion of the year. Accordingly, we find that the disease prevailed, and proved fatal during a period when the mortality from this source is rarely recorded. The register of the interments exhibits 58 deaths from cholera infantum in June, 137 in July, 94 in August, 27 in September, and 4 in October; making in all, 320.

Children having been observed to derive great benefit by a removal into the country, it must be obvious, that the vitiated state of the air, peculiar to a large and populous city, must exert great influence in the production of the disease. Every one who has spent a few hours in the country is sensible, on his entering the suburbs, of the many sources of impurity, calculated to produce this contamination.

Philadelphia, in the lapse of forty years, has undergone many changes. The buildings have been extended over double the space, and its population has been multiplied nearly three-fold. The establishment of large manufactories, and the consequent introduction of the numerous classes engaged in the various arts, may be supposed to have placed a larger number of infants in a condition to receive the disease; and that, from the absence of that care and attention so necessary for their proper nurture, and the sustaining of their vital powers, the mortality may have been probably increased; while it will be conceded, that these baneful causes are many and increasing, it can not be uninteresting if we inquire whether there do not exist countervailing circumstances, whose character and influence ought to engage the attention of every practitioner and enlightened philanthropist.

Water is an indispensable element of life. The quality of this fluid, and the extent of the supply, have great influence on the health and comfort of every individual; that which is obtained from the pumps and wells is found to have imbibed, in its passage through the various strata of the earth, principles whereby its salubrious character is impaired. In large and populous cities the abundant filth deposited in the sinks and privies percolating through the soil, cannot fail to impart much of its noxious materials, thus contaminating the water and destroying its grateful flavor; as it flows in the rivers and streams these impurities are gradually removed, and it again becomes an agreeable and wholesome drink; hence the preference so generally given to the water procured from the latter sources to that furnished from the pumps and wells in large and

crowded towns, where it is necessarily exposed to so many vitiating causes.

Aware of these sources of pollution, the enlightened citizens of Philadelphia directed their attention to the means, if possible, of removing the evil. Application was made to the legislature, and in 1769, an act was passed whereby it was rendered unlawful to carry the privies and sinks beyond the clay found at a specified depth below the surface of the earth. The clay it was hoped would prove a barrier to the passage of any impurities from these receptacles of filth. These measures did not effectually correct the evil. Other motives may likewise have been added by which the City Councils were induced to furnish the inhabitants with water from the Schuylkill; the first attempt was made in 1798, and the water was conveyed by a tunnel to the square at the intersection of Market and Broad streets; here a reservoir was erected from which the water was distributed through different parts of the city. The supply was inadequate to the general wants of the inhabitants; the water was generally turbid, and few families being provided with cisterns and filtering machines, most people resorted to the pumps to allay their thirst, and the supply from the Schuylkill was employed in cooking and many of the ordinary domestic purposes.

Until the works were erected at Fairmount and an abundant supply of water secured, few baths were to be found in private houses. From these works, a larger and more ample supply was furnished for the cleansing of the streets; the water was introduced into many of the dwellings; baths and other means greatly contributing to domestic comfort became common throughout the city. The regulations respecting the depth to which privies and sinks might be dug ceased to be published, and gradually became obsolete, without being abolished; the receptacles for filth were allowed to extend down to running water, and the offensive effluvia emanating from them were in a great measure obviated; the effect on the water drawn from the pumps was soon perceived; but by the help of cisterns and filtering machines, from the river Schuylkill, a pure and limpid water was obtained, to which a refreshing temperature was imparted by the aid of ice which has now become one of the common necessaries of life.

In 1826, the Schuylkill water was conveyed into the District of Southwark; and in the same year, the Districts of the Northern Liberties and that of Spring Garden, each received a partial supply; these districts received an additional supply though still an imperfect one in 1831; it was not until 1833 that any portion of this water was furnished to the village of Kensington.

During a period of ten years, beginning with 1807 and ending with 1816, the total mortality recorded amounted to 20,316, of which number 1,597 deaths are referred to cholera infantum; about seven per cent. The disease appears to have been particularly fatal

in 1810, when nine per cent. of the deaths proceeded from this source. In 1816 only four per cent. of the deaths were from this complaint. Not being in possession of the annual reports since 1844, we have selected a like record of ten years, concluding with the year just mentioned; within this term we find the mortality from all diseases to have been 54,403; cholera infantum having contributed 2,589 to the list; not quite five per cent.: within this period is included 1838, when an extraordinary degree of heat prevailed during the summer months; the mean temperature of that season was 77°; the mortality from cholera infantum was great, being in the proportion of rather more than seven per cent.

The periods selected, each of ten years, are sufficiently extended to afford the means of a fair comparison. In the interval of twenty years, those important changes may have taken place in the character of the population of this city, and in their habits and modes of life, which time is observed to effect. In the lapse of nearly forty years, the population of Philadelphia and the contiguous districts has fully doubled; this accession of numbers has arisen from the congregation of persons engaged in the humbler occupations connected with the various arts and trade of a manufacturing city. The dwellings of these classes have not been improved in point of ventilation; their domestic habits have not permitted the mothers to pay more assiduous attention to their tender offspring; and yet the foul emanations from the privies having been diminished, and an adequate supply of a purer water, one of the elements so essential to health, secured, we perceive a new condition of our city, more favorable to the preservation of life in children of a tender age. This view, if correct, is a cheering one. It opens the prospect, that by due attention to the laws of hygiene, the arts and occupations of civilized life may be more extensively introduced into our cities, without impairing the health of the inhabitants.

Though but little importance can be attached to the evidence afforded by a single case, yet as it was the means of eliciting the remarks just made, the history may not improperly be introduced.

A child labouring under cholera, for the benefit of country air, was removed to a place distant about four miles from the city, and situate in the direction of Germantown. The water procured from a spring on the premises was adapted to the washing of clothes, and therefore in popular language termed soft. The child did not improve as was expected, her bowels still continuing irritable. Reflecting on all the circumstances, it was supposed that the water in use might be impregnated with some salts capable of offending her tender organs, rendered particularly susceptible by previous disease. It was therefore proposed to substitute that supplied from the Schuylkill which had become perfectly limpid by remaining for some time in a cistern. In a short time the benefit was obvious and she soon became convalescent.

The foregoing views receive a strong confirmation from the observations presented by Dr. W. Heberden, and published in the first volume of the Transactions of the London College of Physicians. At the instance of some friends he had been led to examine the character of the water as procured from the pumps and wells of the British Metropolis. The authority cannot fail to command respect, and the extracts will impart greater interest to the present communication.

"The springs in so large a city, besides their natural contents, must collect many additional impurities from cellars, burying grounds, common sewers, and many other offensive places, with which they undoubtedly often communicate, so that it is indeed a wonder, that we find this water at all tolerable. The uninterrupted drinking of such waters for a long time may probably be the cause of many disorders, especially to the infirm, and to children. Hence a change. of place may often be of as much use to weak persons from the change of water, as of air." In another passage, when noticing the greater salubrity of the New River water, then lately introduced into London, he states "that when freed of this muddiness by filtration, or by the slower process of subsidence, the river water is rendered palateable and wholesome." Then follows this remarkable passage. "If the water given to very young children were all of this kind it might perhaps prevent some of the bowel disorders, and so contribute a little to lessen the amazing mortality among the children, which are attempted to be brought up in London."

Early in the summer accounts had been received of the ravages committed by the spasmodic cholera in Persia, and on the borders of the Black Sea. It was even reported that the disease had penetrated into some parts of Europe. Great apprehensions were therefore entertained by the more timid portion of our citizens, that this city would be again visited by this terrible scourge. Every one was watching the character of the cholera with which we are familiar during the warm weather of our summer months. In the cases which came under notice there was none of that extreme prostration of the vital powers, none of that extraordinary coldness of all the surfaces which admit of being examined, none of that blueness of the skin so generally met with in what has been termed Asiatic, or Spasmodic Cholera. What may have been the train of symptoms in what have been reported as fatal cases, no satisfactory information has been obtained.

On the 2d of July a man somewhat advanced in life, and rather addicted to the too liberal use of ardent spirits, ate freely of dumplings made of whortleberries. In the evening he was seized with violent vomiting and purging. The nature of the discharges was not ascertained. One grain of the mild chloride of mercury was directed to be given every hour. He was allowed mucilaginous and mild farinaceous decoctions for drink. On the succeeding

morning he stated that he had discharged blood by stool. On examining the contents of the vessel, no coagula could be detected, and the colour had a greater resemblance to the juice of the berry of the phytolacca, than to the dark red that characterizes the blood discharged from the bowels. There was no opportunity of applying the appropriate test. The case appearing to be urgent, and probably a flux of blood, he was directed to take one grain of the acetate of lead every hour. At noon the discharge had ceased, and in the evening he was free from complaint.

The lists of interments indicate fewer deaths from cholera than have been usually recorded in former seasons.

Dysentery was observed early in June. The disease at this period was easily corrected by a simple attention to diet. During the succeeding month the cases were more numerous and called for more active treatment. Twenty-one deaths were referred to this source, a number less than has been usually recorded in former years.

Inflammations of the stomach and bowels, were not of frequent occurrence, though throughout the year they occupied a place in the bills of mortality.

It is worthy of notice that during the heat of summer, no case of sudden death caused by drinking cold water, or by exposure to the strong rays of the sun, was recorded by the Board of Health. The deaths from apoplexy were not more numerous at this season than during the months of January and February. In the former month, the deaths from apoplexy were fifteen, being the largest number observed in the course of the year.

The distinctive appellations of catarrh and bronchitis, now generally introduced and acknowledged by the profession, are of modern date. The former designates the inflammation as extending over successive portions of the membrane lining the bronchial tubes, and the passages communicating with the external air. But in bronchitis the membrane lining these passages is but slightly, if at all affected. When catarrh proves fatal, the bronchial membrane is observed to be implicated, and without such inflammation of the bronchial lining, death perhaps never takes place in catarrh. Prior to the year 1828, bronchitis is not indicated in the list of interments published in this city. Catarrh having been formerly the term employed by the physicians of Philadelphia. By consulting the weekly bills, bronchitis or inflammation of the bronchi will be found to be a frequent cause of death, especially in children. Ninety-three persons not arrived at adult age, are recorded to have died of this disease, in the months of January, February and March. In May, however, the number of deaths from this source, exceeded what was recorded in any month, February excepted. Among adults only thirty deaths are imputed to this disease, and in October not a fatal case is noticed in persons of this age.

Catarrh, though confined to no particular season of the year, became epidemic in December. Scarcely a house escaped, and the disease often affected every member in a family. A sense of weariness and listlessness were observed among the earliest indications of any indisposition. To these soon succeeded a chiliness, by many persons supposed to be the mere impression of a cold atmosphere, to which they had been just exposed. But the alternations of heat and cold, of which they soon became sensible, indicated the approaching paroxysm of fever. Severe rigors were occasionally observed to usher in the febrile stage. Headache, more or less intense, referred to the temples, or to the forehead immediately over the brows, was often a very distressing symptom.—Many persons complained of pain and stiffness in the ball of the eye, about the same time they were affected with intolerance of light and a flow of tears. Some described the pain as seated in the cheeks, others referred the uneasiness to the throat. Pain in the ears and a sense of ringing, the hearing often obtuse, were symptoms observed in this stage, and sometimes in the further progress of the disease. Sneezing and defluxion from the nose, were, in some instances, the first indication of the disease. Many persons suffered from severe pain along the spine and between the shoulders; others complained of pain in the larger joints, rarely fixed, but generally shifting from one part to another. Some persons were annoyed by continual retching, discharging nothing but wind from the stomach. Colicky pains and diarrhœa were frequently observed, especially in those who had committed any indiscretion in diet, or who had been long exposed to an atmosphere of reduced temperature so as to occasion cold feet.

The symptoms above mentioned were more or less present during the evening of the attack. The subsequent night was spent in great disquietude, the patient being disturbed by frightful dreams. Children were frequently affected with delirium, which proved the cause of great anxiety and alarm to the parents and attendants. After a restless night, towards morning the patient perhaps fell into a slight slumber, during which some degree of moisture was noticed on the body and limbs. On awakening he felt somewhat relieved. This was but a temporary truce, for as the day advanced, the fever, the pains, the sickness at stomach, with the other distressing symptoms usually returned. On the second day, if not earlier, the persons became incommoded with cough, accompanied by a sense of rawness in the throat and behind the sternum. In this stage the sputum was thin and acrid; the face was flushed; the skin hot and dry; the pulse more frequent and of greater volume. The increase of these symptoms towards the close of the day foreboded another disturbed and restless night. As the morning approached, a more copious perspiration than had been previously observed, proved the harbinger of a welcome crisis, or solution of the fever. A sense of

weariness and some soreness in the parts which had been the former seat of pain were warnings that the indisposition was not entirely removed. The febrile condition rarely subsided before the third day, and was often prolonged until the fifth and seventh days. The defluxion from the nose, and the cough continued to annoy the patients for some days after the fever had ceased. Where the more intimate structure of the lungs was implicated, imparting the character of pneumonia, the fever and unfavorable symptoms extended into the second week. This complication with pneumonia, constituted the principal source of danger, and to it the instances of fatal termination may be generally referred.

This epidemic has been more severe and has proved more fatal than that which prevailed in the summer of 1843; but has not assumed the aggravated form which characterized the disease in December, 1831, and in January of the succeeding year. The mortality from catarrh, influenza, and from inflammation of the lungs and bronchi, collectively taken, amounted to one hundred and twenty-four. In the corresponding month embraced in the present report, the number of deaths from the same sources has not exceeded thirty-six.

In the majority of the cases no very active treatment was required. A state of perfect quietude, and the abstraction of whatever could excite the mind or body appeared generally sufficient to bring the disease to an early solution. Persons of a plethoric habit, or those in whom there was great determination to the head, or in whom the lungs were deeply affected, derived great benefit from early and copious bleeding, the blood being taken from the arm. Even where the plethoric condition of the system was not so obvious, the topical application of leeches behind the ears often relieved the obstinate pain and ringing in the ears. Some alleviation of the pain in the face, in the back and limbs, of which severe complaint was made, was observed to follow the application of counter irritants to the spine and limbs, and to the face by the application of a solution of opium, either in spirits or water.

Hooping cough prevailed extensively throughout the year, particularly after the month of June. In August the disease is recorded to have proved fatal to twenty-two children, and in September to twenty-four. This mortality was independent of those causes which exert a marked influence in the production of bronchitis, to which, of all the diseases incident to children, hooping cough has the nearest affinity. In the period just alluded to, only six deaths were ascribed to inflammation affecting the bronchi. As the disease usually continues for weeks without materially impairing the general health, it is only, for the most part, in cases of peculiar aggravation that it becomes the subject of medical attention; for every family has its nostrum for a disease, which cannot be immediately removed.

Dr. Stille inquired of the committee whether the fact, as stated in the report, of the intermittent fever having been less prevalent in the north-western portions of the city than in the south-western districts, was well substantiated.

Dr. Moore replied, that the statement was founded upon very extensive inquiry, and upon the observations detailed by several of the Fellows, at one of the meetings of the College during the last autumn, and he believed it to be unquestionably true.

Dr. Parrish inquired as to the mortality of bronchitis as it occurs in children. He doubted whether it was so great as the bills of mortality would seem to show. It was his impression, that pneumonic and not bronchitic inflammation was the actual cause of death in a majority of the fatal cases set down as deaths from bronchitis. It is well known that there is a very great liability of the inflammation of the bronchi, extending, in children, to the substance of the lungs.

Dr. Condie has reason to believe that full fifty per cent., if not more, of the cases of death reported as from bronchitis, are, in fact, fatal cases of pneumonia.

Dr. Stille thought that a similar remark would apply to the deaths set down as from hooping cough.

Dr. Jackson believed that many of the deaths were from croup, commencing as bronchitis—the function of the lung being destroyed by the mechanical obstruction in the bronchi caused by the morbid secretions poured into their cavity.

Dr. Stille considered that the fatal cases referred to by Dr. Jackson, were cases of suffocative catarrh, or pseudo-membranous bronchitis. The disease consisting in an effusion of fibrinous matter into the bronchi, independent of inflammation of the larynx or of the vessicular structure of the lungs.

Dr. Gibbons was of opinion that our bills of mortality presented a very inaccurate exhibition, generally, of the causes of death. Even in regard to the exact character of the disease, during which the fatal event took place, they are marked with great uncertainty. Medical diagnosis and nomenclature, not being always in exact accordance, a very different set of morbid symptoms may receive the same name from different practitioners. And then, again, we have the terms old age, debility, drunkenness, &c., which often do not convey to us any idea of the actual cause of death in the cases to which they are applied, and never with sufficient accuracy. Our reports would be more valuable were the actual cause of death given in each case, together with the disease during which the fatal event took place.

Dr. Condie stated, that for many years, the bills of mortality had been prepared under his inspection, and he admitted, that like all other documents of a similar character, they were liable to considerable inaccuracy. The bills for the city and districts of Philadelphia are kept by the Board of Health, under the directions of

the Act of Assembly of 1818. By this act it is made the duty, under penalty for neglect, of every physician or surgeon, under whose care a patient shall die, to give a written certificate, specifying the name and apparent age of the deceased, and the *disease* of which the patient died; but in cases where no physician or surgeon shall have been in attendance, or in case of neglect or refusal on the part of the medical or surgical attendant, the certificate is to be given by some one of the family in which the death shall have occurred. From the looseness in the provisions of this law, many very inaccurate certificates, it will be readily conceived, must be given. In fact, a bill of mortality which would afford positive pathological data can be constructed only where the cause of death in each case is tested by an accurate post-mortem examination. The Board of Health have, upon the suggestion of its medical members, made several attempts to improve our bills of mortality, but their efforts have not been seconded by the medical profession generally, who are not yet sufficiently alive to the value of accurate medical statistics to lend their aid towards their formation. But with all the errors and deficiencies of the bills of mortality of Philadelphia, so far as general results are concerned, they will be found not devoid of value. Whenever any leading principle has been tested by the data furnished by them, the same results have been obtained as were deduced from the bills of mortality of the leading cities of Europe.

Stated Meeting, March 2d, 1847.

Dr. Hewson, President, in the chair.

Present, twenty-three members.

The Committee on By-Laws was continued.

The Library Committee reported that they had received from the Sydenham Society of London,
An account of the Epidemics of the middle ages, by Hecker.
Thomæ Sydenham, M. D., opera omnia, and
Researches on Phthisis, by P. C. A. Louis, M. D.

Communications were read from the American Philosophical Society, acknowledging the receipt of the first number, vol. 2, of the Summary of the Transactions of the College, and from Dr. T. Stewardson, of Savannah, Ga., acknowledging his election as an Associate.

On motion, Dr. C. D. Meigs was appointed as an additional delegate to represent the College in the National Medical Convention.

A conversation took place in reference to the prevailing diseases.

Dr. Parrish has seen, in connection with the prevailing catarrh, several cases of eruptive disease, closely resembling measles, but differing from it in the shorter duration as well as in the appearance of the cutaneous affection.

Dr. Griscom has recently met with a number of cases of varicella, and in a large number of instances has observed in his vaccinations, the insertion of the matter to be followed by a vesicular eruption, transient in its duration and attended with no unpleasant symptoms. The inflammation of the arm was very diffused, and the resulting scab very large and rough.

Dr. Condie remarked, that he has met with a much greater number of anomalous eruptive complaints during the present season than for many previous years. Some resembling, in the general character of the eruption, measles, others scarlatina, others varicella, &c., but differing from these in their much shorter duration and irregular course. He has also met with an unusual number of instances of neuralgic affections of different parts of the body.

Dr. Parrish has also met with several cases of muscular pains without fever.

Dr. Coates has seen a case or two of neuralgia of a very severe character. He described a case of severe masto-metrodynia, in which the pain was entirely relieved on the first application of ointment of veratria.

Dr. Fox had been struck with the very great diversity of symptoms attending the prevailing catarrhal epidemic.

Dr. Wood thought that there was something in the prevailing epidemic influence which has given rise to the very great diversity in the forms of disease that has been observed during the present season. With the ordinary catarrhal complaints, which have been very common, there have prevailed diseases of a febrile and decidedly inflammatory character, muscular pains, sometimes particularly severe and obstinate, and, as the gentlemen have stated this evening, an unusual number of cutaneous diseases.

Dr. Bell doubted whether the epidemic had predominated over the ordinary endemic influence of the season. All of the diseases that have been alluded to are common affections during the winter season. The same exposure in one individual producing inflammation of the throat, in another simple catarrh, and in another pneumonia or pleuritis. In former years he has observed precisely the same diversity of forms of disease to prevail. He is convinced that since the commencement of the year, disease has very considerably declined. Previously, however, the frequency of catarrh, and

its severity in many cases, would lead us to suspect that it possessed somewhat of an epidemic character. Great diversity of symptoms is certainly by no means uncommon in influenza. Severe muscular pain is a frequent accompaniment of that affection, and in cases where the inflammatory character is the least decided. We know, that influenza during the past season has been particularly prevalent in Great Britain, and under a form in which depletion of almost every kind has appeared to be counter indicated; it is certain, at least, that there is a very great unanimity of opinion among the English physicians, as to the injurious effects of the lancet and other depletory remedies in the disease.

Dr. Wood, judging from the accounts given of the influenza as it prevails in Europe, would consider it as assuming there more of a typhous character than it has done with us. There is in fact in all the diseases of Europe a greater tendency to the typhous form than in those of this country. He has even noticed a difference in this respect between the diseases occurring in Europeans and Americans in this city. In the Pennsylvania Hospital it is seldom that the seamen of our own country are affected with typhoid symptoms; the typhoid affections in this institution being almost exclusively confined to Irish and other immigrants.

Dr. Coates was certain that there is a very considerable diminution in the frequency with which blood is now drawn in pulmonary catarrh with its complications. He was disposed to the opinion, that much of this could be explained, by differences in the mode of living of the subjects. Between 1814 and 1819, he resided within the Pennsylvania Hospital for his medical education. At this time, bleeding was very generally practised for what was and is popularly called "a cold on the breast." One of the most prevailing motives for the use of this remedy, was the relief of pain or soreness. The organic medicine was then but little studied around him; but he satisfied himself that the sensations said to be "in the breast" were generally in the epigastrium. These were almost always greatly relieved by the remedy, the patient's condition visibly improved, and the loss of fluid borne well.

A diminished disposition to bleed for catarrh was acknowledged among practitioners. Dr. C. was one of that mass who were inclined to doubt whether bleeding from the large vessels had any real effect upon the pure inflammation of the lining membrane of the bronchi, at all. Certainly, he used venesection much less frequently among the poorer subjects, than had been the case, as above described, in the Hospital. He would not deny the agency of epidemic causes; but, as these were unknown, preferred to develop, as far as possible, those whose agency could be rendered unquestionable. The labouring poor of Philadelphia now had a less lavish abundance of the best food than between 1814 and 1819; from the increased size of the city, they had less pure air, and from modes of

life, were less uniformly exposed to it. These causes all tended to diminish the hæmatosis; and he thought, rendered it right that less blood should be drawn.

In addition to this, the subjects now embraced fewer seamen, and a much larger proportion of foreigners, whose situation, in regard to food, pure air, and hardships, during their period of growth, was still worse than that just described.

This mode of inquiry ought not to be considered as fickleness of opinion, or "flying from one extreme to the other." It was a careful and prudential investigation of facts; and was a moral duty. Dr. C. denied his having, either then or more recently, gone into extremes. His original views were those of Cullen, Rush, and Robert Thomas; which are well known. And the doubt whether venesection had an effect upon the pure bronchial inflammation, shared by so many eminent men, did not imply that blood should not be taken for pericarditis, carditis, aortitis, cellular, or other inflammation within the mediastrium, gastritis, or even for the local peritonitis above the liver, aggravated and perhaps produced by coughing, and known to Lænnec and other organic physicians. He begged a closer attention to this phenomenon; which was of very common occurrence.

Dr. Morris stated that according to his experience, general bleeding was rarely demanded in cases of influenza—he has found the disease to yield very readily to a diaphoretic treatment, combined with anodynes. Dover's powder is a favourite prescription with him in this disease, and when early resorted to, he has found it in many cases to speedily arrest the attack.

Dr. Gibbons, believes that there is a very great difference between the constitution of the great mass of the American people, and that of the people of Europe, generally—causing the diseases occurring in the first, to assume a more sthenic character, and consequently to demand more active depletion, and to bear it better than the same class of diseases occurring in the latter. The cause of this difference of constitution, forms certainly, a very interesting subject of inquiry. There is something to be ascribed to the race from which we sprang. A large portion of our population are the descendants, it is to be recollected, of a select class of Europeans, who chose this country as an asylum from religious persecution—from political tyranny, or as a field upon which their spirit of industry and of enterprise could be put forth, so as to reap its legitimate fruits. The inter-marriage of the different European races, which is so common in this country, has had a natural tendency to improve the vigour and energy of their offspring. Something is also owing to our climate, which in the Northern and Middle States, would appear not only to have a tendency to render the American more brisk and active, but to improve the stamina and augment the recuperative powers of his system. There may be something, too, in our form of

government—in the direct agency which the citizen is permitted and invited to take in all that relates to his political welfare—the feelings of perfect freedom of opinion and action which he enjoys—that is calculated to improve and invigorate his constitution. His common diet also assists materially in producing these results. The American eats more meat, partakes of a more nutritious and stimulating diet, and in greater abundance than the European populations generally. The excessive use of beer in England, and of alcohol in other portions of Europe, acts prejudicially upon the constitutions of the people, and probably upon that of their offspring. Now the American people, taken as a whole, are comparatively a sober people—with all the intemperance which unhappily exists in our land, we will compare advantageously in this respect with the people of almost every other country. The immigrants who have flocked to our shores from Europe for many years past, do not represent even in bodily organs the average of the native population of the countries from whence they come. Not only have the energies of their bodies been depressed by the various unfavourable influences to which they were subjected at home, but there is superadded, too often, the further deteriorative results from the excessive use of alcohol, and to this, unfortunately, they are liable to become even more addicted after their arrival amongst us.

There are perhaps other causes calculated to produce a very great difference in the amount of vigour and stamina of constitution between the European and American, and to cause the diseases of the two to assume as marked a difference in their type and tendency.

Stated Meeting, April 6th, 1847.

Dr. Wood, Vice President, in the chair.

Present, thirty members.

The Committee on By-Laws was continued.

Dr. Hays presented to the Library of the College the following works:

Bibliothek der Practischen heilkunde. von Hufeland und Osann, for the years 1826, 27, 29, and 30.

Magazin der Ausländischen Literatur der Gesammten heilkunde. von Gersen und Julius for 1834.

Heidelberger Klinische Annalen, for 1825, 26, 28, 29, 30, 31, 32.

The Report of the Committee of the New York Legislature on Medical Societies and Colleges. February 16th, 1847.

The American Journal of the Medical Sciences, for January, 1847.
The Medical News, Nos. 49 to 52, inclusive, for 1847.

Dr. Hays, also, after a few appropriate remarks, laid upon the table a number of pamphlets, newspapers, and other publications illustrative of the progress and different forms of quackery.

Dr. Gibbons, on behalf of Dr. Moore, presented a preparation of the portion of the bones involved in the fracture of the head of the femur in which ligamentous union had taken place, in the case mentioned by him to the College at its meeting in November, 1846.

Dr. Coates brought before the College the case of Dr. Ed. Y. Howell who was elected a Fellow at the meeting in June 1832, but who had never signed the constitution; when, on motion, the whole subject was referred to the Censors to examine into the facts of the case and report thereon at the next meeting of the College.

Dr. Gibbons presented the outlines of a case of death from stricture of the pylorus.

Dr. Ashmead related the particulars of a case of supposed abdominal pregnancy.

Dr. Coates noticed the particulars of two cases of paralysis preceded by a peculiar eruption on the legs.

Dr. C. D. Meigs narrated the outlines of a case of phlebitis from venesection in the arm, occurring in a gentleman about fifty years of age. The inflammation of the membrana vasorum commune resulted in the production of pus which filled the vessel. The abscess thus formed was partly discharged, after some days, at the orifice made by the lancet in venesection, another large tractus of the vein was not thus emptied, but seemed to discharge itself by a re-opening of the communication with the sub-clavian vein, causing thus the injection into the circulation of a large quantity of pus, which produced almost immediate death, with the usual symptoms of a purulent infection of the blood. The Doctor suggested in a similar case, the propriety of an early opening to give discharge to the pus, and prevent fatal results.

This case gave rise to considerable discussion as to the proper treatment of phlebitis, both previous to and after the formation of pus within the vessel. In the course of which the success attending the treatment by blistering, as recommended by the late Dr. Physick, was alluded to by several of the Fellows. In illustration of the effects of this treatment Dr. Evans related a case of phlebitis, occurring in a female over fifty years of age, affected with mania, con-

stitutionally feeble, and much excited. The disease made its appearance first in the superficial veins of the right forearm, and had existed for a day or more, before it attracted much attention. The whole forearm and hand, to the end of the fingers, became highly reddened, and œdematous, the veins were greatly distended, and their coats thickened and resisting. The pulse was small, about one hundred pulsations in the minute, and hard: tongue coated with yellow fur; great restlessness. A blister was applied, and hydrarg. prot. chlorid. et ipecac. aa gr. 1-6, to be given every two hours.

The next day the forearm was improved, but the inflammation had extended up the arm, into the axilla, and the superficial veins over the top of the shoulder, and along the clavicle were affected, the whole being greatly swollen, hot, and sensitive. Pulse (in the left arm) about the same frequency, but smaller; skin hot and dry; bowels confined. Applied a blister along the course of the veins of the arm, and another over the shoulder and along the clavicle. The forearm and hand to be kept covered with cloths kept saturated with lead water and laudanum. Directed magnes. sulph. ℥ j; and to continue the hydrarg. et ipecac. Finding at night that the blisters had not vesicated the skin, they were re-applied.

In the ensuing twenty-four hours there was some abatement in the violence of the symptoms; the limb was less swollen, and the veins not so prominent; pulse rather fuller and softer, with a slight moisture over the surface of the body. Continued hydrarg. et ipecac. and had the blistered surface covered with poultices of ground flax-seed. The next day the swelling of the arm had increased, the pulse was more frequent, skin dry, tongue brown but moist; the bowels had been opened in the night. The blistered surface over the shoulder and clavicle was discharging freely, but the arm had not been fully vesicated, and there was no discharge from it. Directed another blister to be applied along the arm, and the hydrarg. and ipecac. to be continued.

The day following, the patient was much the same, the blister on the arm well raised; continued medicine, and directed magnes. sulph. ℥ ss.; the blistered surface to be dressed with basilicon.

The salts operated freely, and the next day the pulse was fuller, but the skin dry and the mouth parched; both of which symptoms were aggravated after the opening of the bowels two or three times in the course of the day. Potassæ nitras gr. x. were directed to be given with each dose of the hydrarg. et ipecac.; continued the same dressing to the arm and shoulder, &c.

The next day the swelling and heat of the arm were much diminished; heat over the surface of the body less; patient more tranquil. Blistered surfaces discharging pretty freely. Stopped the hydrarg. et ipecac. and ordered instead mass. cœrul. hydrarg. gr. i. pulv. ipecac. gr. ¼ nit. potass. grs. x., to be given every three hours. Continue same dressings to blistered surface. On the following day

the arm and shoulder were decidedly improved, and the constitutional symptoms better, pulse fuller and softer, mouth and skin moist, tongue cleaning, bowels opened naturally. Directed the potass. nit. to be stopped and morph. sulph. gr. 1-12 to be given with the mass. et ipecac.

From this time the phlebitis rapidly subsided, though for many days after, the small veins of the forearm and hand were occasionally turgid.

Dr. Condie presented and read the Annual report on Diseases of Children, as follows:

Your Committee has endeavoured in the following Report to embrace "a review of such interesting facts and doctrines," in relation to *the Diseases of Children*, as have been offered to the profession, during the preceding twelve months.

In the commencement of the year 1846, an epidemic of cerebro-spinal arachnitis occurred in at least three localities in Ireland. An account of the disease as it was there observed is given by Dr. Mayne, in the *Dublin Quarterly Journal of Medical Sciences*, for August, 1846.

The pathology of the disease seems to have been nearly uniformly the same, wherever examined. The serous membrane covering the brain and spinal marrow was invariably found to be the seat of extensive inflammation, and unlike the more ordinary forms of arachnitis, the *spinal* arachnoid always suffered much more severely than the cerebral.

In the post-mortem examinations made by Dr. Mayne, the scalp and dura mater exhibited but little undue vascularity; the pia mater covering the hemispheres of the brain was congested, and the large veins in their way to the several sinuses appeared remarkably turgid. The free surface of the cranial arachnoid felt dry and clammy, and had lost its transparency in many places, particularly at the base of the brain, but there was no lymph or other inflammatory effusion in the sac of the arachnoid. Lymph of a yellowish or greenish hue appeared on the surface of the encephalon, *beneath* the serous tunic, this occurred sparingly on the upper surfaces of the hemispheres, and there only along the sulci, but at the base of the brain it was found in greater quantities, especially in the sub-arachnoid space corresponding to the circle of Willis, where many of the cerebral nerves at their origin were fairly imbedded in it. In the spinal canal, a similar exudation filled the sub-arachnoid space; it there existed in sufficient abundance to envelope the cord completely, it also extended down to the lowest extremity of the cauda equina, investing each of the spinal nerves at its source; but in the vertebral canal, as in the cranium, the cavity of the arachnoid contained none of this morbid secretion. The substance of the

brain and spinal marrow appeared remarkably free from lesion, there was no unusual vascularity, induration, or softening apparent, nor did the ventricles betray any evidence of inflammation.

In the cases reported, however, the brain and spinal marrow are stated to have been occasionally implicated; in some, the ventricles of the brain contained inflammatory effusions, and the choroid plexuses appeared unusually vascular, in others, more or less of the substance of the brain and spinal marrow was found in a state of softening; in a certain number, sero-purulent effusion was detected at the base of the brain, and in the theca vertebralis; but in every instance the serous membrane was the part essentially engaged, whilst the nervous material seldom suffered, and when affected it was only accidentally involved, the disease having been, in such cases, evidently propagated to the substance of the cerebro-spinal axis from its membranous investments.

A remarkable feature of this malady is the class of persons on whom it has seized. In Ireland, so far as has been ascertained, boys under twelve years of age have been, with few exceptions, its only victims; the seven cases reported by Dr. Darby, were all boys, and only one of them had passed his twelfth year; in Belfast ten cases of the disease were noted, all occurring in boys from seven to twelve years of age; and in Dr. Maynes' experience, individuals of the same description were alone attacked.

The symptoms by which the disease commences are, in general, of a very formidable character, and its accession is usually sudden and quite unexpected; in the majority of cases the patient was in his ordinary health and spirits up to the very moment of the seizure, and had experienced no premonitory symptoms to warn him of his danger. In four of the cases at the South Dublin Union, the boys had eaten a hearty dinner, and retired to bed in apparent health when the disease, all at once, declared itself. In many instances it commenced with severe pain in the abdomen, followed immediately by vomiting, and not unfrequently by purging. In the worst cases, these symptoms are accompanied by marked collapse, the extremities are cold and bluish, the pulse is at this time a mere thread, and altogether the disease assumes very much the aspect of cholera. After the lapse of a few hours, reaction, more or less perfect, ensues, the muscular system then presents characters which may be considered almost pathognomonic. The muscles of the extremities, and those of the neck in particular, become remarkably rigid, the head is drawn back upon the vertebral column, and firmly fixed in that unnatural position; no efforts of the patient can bend it forward, neither can the attendants do so, at least by the employment of any justifiable force. The countenance at this period often assumes very much the tetanic expression; twitchings of the muscles of the face sometimes ensue; the patient loses, in a great measure, the power of moving his extremities, so that he is quite

unable to assume the erect position; the surface becomes hot, the pulse full and frequent, from 120 to 140; the stomach often continues irritable, whilst an insatiable thirst torments the sufferers, and the epigastrium evinces marked tenderness upon pressure.

Symptoms of a still more distressing nature quickly supervene; the patient may be seized with general convulsions of a frightful severity, requiring personal restraint to protect him from injury, or he may be in a semi-comatose condition, constantly moaning and grinding his teeth, or even crying incessantly. Towards the close of his sufferings, he generally merges into perfect coma, the pulse becomes slow and laboured, the powers of speech and deglutition fail, his stools are passed involuntarily, and death finally closes the scene. All this may occur in a surprisingly short space of time, some of the cases ran their course in forty-eight hours, and the greater number terminated about the fourth day, whilst some few were prolonged over a fortnight or three weeks. Examples are on record of death from the disease in so short a period as fifteen hours.

Notwithstanding, in some cases, an exalted sensibility of the cutaneous surface generally, was observed, such as pain more or less intense in the head, heat of scalp, congestion of the conjunctiva, strabismus, intolerance of light, &c., yet, in many, no such evidence occurred, until the laboured pulse, the dilated pupil, the profound coma, or the severe convulsion, told but too plainly that the death struggle was at hand.

In some instances an exalted sensibility of the cutaneous surface generally was remarked the patient being "sore all over," and wincing, upon the slightest touch, or refusing to change their position in bed, from the pain consequent upon the slightest movement; (the observation of this symptom is due to Dr. McDowel;) but far more frequently a diminution of tactile sensibility and confirmed stupor, afforded grounds for the worst anticipations.

Dr. Mayne, more than once noticed irregular and laboured respiration as a leading symptom, and this, in itself, provided there was an absence of stethoscopic evidence of thoracic disease, would constitute a valuable diagnostic.

Notwithstanding that the distressing tenderness of the epigastrium, associated with continued irritability of stomach, would seem to indicate decided disease of that viscus, Dr. M. has nevertheless found the abdominal viscera absolutely healthy in the post-mortem examination of two cases, in which these symptoms persisted in a very marked manner to the close.

The fatality of the disease as it appeared in Ireland, was very great. The line of treatment most likely to prove successful requires our fullest consideration. It is much to be feared, Dr. M. remarks, that where symptoms denoting extreme collapse show themselves from the commencement, all the resources of our art

will prove unavailing. The prompt application of the most powerful excitants to the cutaneous surface, particularly mustard and turpentine, aided by heat and friction, and directed specially to the region of the spine, and to the extremities, seems to promise some advantage. Diffusible stimulants should be employed as sparingly as possible, seeing that an intense inflammation, affecting the very centre of animal life, must remain to be combated after reaction sets in. General and topical depletion, so soon as it can be borne with safely, and the early and free exhibition of mercury, both by the skin and stomach, should constitute our chief dependence. Even this active treatment will often disappoint us. In one case, the jugular vein was opened by Dr. M. within a few hours after the accession of the disease, and blood was drawn in a full stream, as long as the boy's strength would permit; this was followed up, at short intervals, by relays of leeches to the temples and mastoid processes; the mercurial plan was, at the same time, most energetically pursued, and blisters, with mercurial dressings, were applied to the head, and along the spine. Yet all was of no avail, the patient died in convulsions, on the fourth day. In other cases, the same measures have been attended with perfect success.

The cause of this disease is involved in the greatest obscurity.

The following observations on Tubercular Meningitis by Dr. Hamernjh, appeared in Schmidts' Jahrbucher, for 1845. They are, in many particulars, interesting, notwithstanding they differ in some respects from the observations of other pathologists.

Dr. H. remarks, that meningeal tubercles are most frequently observed in the meshes of the pia mater, at or near the base of the brain. They are seldom seen to occupy the convexity of the hemispheres. They present themselves, in the first instance, as small transparent granulations, which eventually become opaque and yellow. As a general rule, meningeal tubercle is a secondary affection, being seldom observed unaccompanied by tubercular deposition in other organs. It is an extraordinary fact, however, that it is rarely seen in conjunction with pulmonary tubercle.

The disease occurs chiefly in children, but may show itself at any period of life. The following are the principal symptoms in the former class of patients: pain in the head, fever, vomiting, delirium, painful contractions of the cervical muscles, with contracted, and subsequently dilated, pupils. There is considerable tension of the abdominal parieties, more particularly in the region of the spleen, the bowels are costive, the pulse is at first slow, but afterwards quick, and variable in force. The external appearance of the patient bespeaks the presence of tubercular disease.

The headache, which is principally confined to the forehead, is one of the most constant symptoms, frequently preceding the appearance of the other symptoms for many days or even weeks. It

is sometimes so intense as to render the patient insensible. This pain is believed by the author to be dependent, not upon the presence simply of the tuberculous matter, but upon the hyperæmia and albuminous exudation, which it produces by irritation of the meningeal tissues. The pain is soon followed by fever, either continuous, or, as is frequently the case, of a remittent type. The obstinate vomiting which is sometimes observed, is accounted for by the author, on the supposition, that the origin of the nervi vagi is compressed or irritated by the products of the meningeal inflammation. The delirium is moderate at the commencement of the disease, but increases as it progresses, until it is replaced by coma. The painful contraction of the cervical muscles is a constant and very characteristic symptom, and is no doubt to be attributed to the irritation of the nerves at the base of the brain. In order to ascertain the presence of this symptom, the author recommends that the patient's head should be moved from side to side, watching at the same time the expression of his countenance. In some instances, the spasmodic contractions extend to various parts of the trunk, giving rise to tetanic or epileptic convulsions. In the commencement of the attack the countenance is suffused, the eyes are injected, and acutely sensible to light, and the pupil is contracted. As the disease progresses, the pupils become dilated, and vision is frequently entirely abolished. The coma, which in most cases closes the scene, appears with different degrees of intensity; it may be intermittent in the first instance, and alternate with delirium, but it becomes permanent previous to death.

The tuberculous affection of the cerebral meninges has several distinct periods of development. It first appears as transparent granulations, in the meshes of the pia mater, which afterwards become yellow. In this condition they do not give rise to any pathognomonic symptoms; sooner or later, however, a fresh deposition of granulations takes place, and extends to the space in which the cerebral nerves take their origin. The interior of the ventricles likewise becomes affected by contiguity, and the hydrocephalic action thereby established induces a disturbance of the cerebral functions, with serous infiltration and softening of the central parts. As long as the ventricles remain intact, the tubercular affection may remain inactive, and if tubercularization of the organs does not ensue, the patient may entirely recover.

The author considers that it is very difficult or almost impossible to distinguish the first two periods of tubercular meningitis, viz: the period of tubercular deposition, and that of inflammation, during life, but the last, or hydrocephalic stage is more readily recognised. When this latter condition occurs we have a loss of sensation and motion in the limbs, blindness, with an apparent projection of the eye-balls, and more or less complete stupor. As long as these symptoms are absent there is no cause for despair, even coma is not ne-

cessarily a fatal symptom, as it may occur independently of effusion.

It is of great importance to watch for the first appearance of tubercular meningitis. When a child, which has for some time appeared to lose flesh, and especially if it had pre-exhibited a scrofulous enlargement of the glands, becomes the subject of pains in the head, we must be on our guard: but other symptoms portend the appearance of tubercular meningitis; in the case of robust children, headache is not of serious import, as in them it may arise from many other causes. Convulsions, tossing of the hand above the head, and screaming are not specially connected with the tubercular affection, as any kind of exudation at the basis of the brain may give rise to the same symptoms, but it is to be remembered, that in nineteen out of twenty cases of deposition at this part, is of a tuberculous nature.

In a paper contained in the sixth volume of the *Medical Transactions of St. Petersburg*, Dr. Doepp states, that in private practice, extending over a period of twenty-six years, he has met with only three cases of cephalæmatoma Neonatorum, whilst in the Foundling Hospital, during the space of eleven years, it occurred in 262 cases: in all, excepting two, the disease was seated upon the parietal bones, near their superior portion. The average amount of cases was one in 190 of the whole number of children in the hospital. Eleven post-mortem examinations were made, including eight who died of other diseases when thus affected.

In no one of the eleven cases was any perforation of the skull observed, nor any effusion of blood upon its inner surface.

The whole of the 262 patients were brought to the hospital with the affection already existing, though many were not above a few hours old. But the tumour was often observed to increase in size after the arrival of the infants, at least, during the first three days, after which no further enlargement took place, excepting in those cases where the tumour after being opened became again distended.

It was only in nine cases that the nature of the labours could be ascertained; in these it had been easy and every way natural; the mothers were strong and healthy, and not over-burthened with fat. Three were primiparæ; the previous children of the other eight had been perfectly free from any signs of the disease.

The cephalæmatoma seemed to be always beneath and separate from the scalp. It was a tense fluctuating tumour; the integuments were of normal colour, and could, even in the most distended condition of the swelling, be freely moved backwards and forwards over its surface. The pulsation noticed by Nægele and others was never observed, nor did pressure on the tumour seem to cause pain to the infant. Its form was usually oval, but was sometimes altered by two or three tumours being placed in close apposition. The largest tumour that was observed in the hospital measured about

four inches by three, and several were seen not larger than a hazel-nut.

The hard ring around the tumour was never wanting, though at an early period of the disease it was less observable than afterwards. It was most distinct whenever the tumour was emptied by incision, and gradually disappeared then in about five days. Dr. Doepp carefully dissected two cases for the express purpose of ascertaining the true nature of this callous ring. After removing the external integuments, he found that the tumour was formed by the pericranium distended with blood. Upon incising the swelling and washing out the contents, he observed the callous ring to consist solely of a layer of coagulated blood, which had formed all around the portion of the pericranium which had been upraised from the bone. By a continuous stream of water this layer could be dissolved and then washed away, when the callous ring entirely disappeared. The pericranium was everywhere healthy, as was also the bone beneath. No appearances of inflammation could be detected in either. Dr. Doepp does not, however, deny that, in certain cases where the tumour has been opened, and much suppuration has ensued, the bone may become carious, and thereby the exterior table of the skull, with the diplöe may be destroyed. In such instances the circumference of the carious portion would necessarily present a sharp unyielding edge. In one skull in Dr. D.'s possession, the absorption of the diplöe appears to have commenced first, and the external table over the depressed portion was depressed in the centre, but elevated at its circumference, so as to form a callous ring of bone. The termination of the disease was almost always favourable. Two infants died out of 265, and one of those from violent phrenitis, occasioned, perhaps, by cauterizing the interior of the tumour with nitrate of silver. The cause of cephalæmatoma, Dr. D. confesses that he is unable to explain—he is entirely dissatisfied with all theories hitherto promulgated.

The treatment pursued appears to have been very simple. Fomentations were applied at first, but if no disposition to absorption manifested itself before the end of the second week, the tumour was opened by a small incision, four or five lines in length, and the extravasated blood was pressed out. The fear of hemorrhage, so dangerous in a new born weakly infant, deterred Dr. D. from emptying the tumour at an early period, he recommends that the operation, on the other hand, should not be delayed beyond the fortnight, as absorption of the bone will then probably commence.

Dr. Stöber of Strasburg, has observed, in several cases of hydrocephalus acutus, shortly before death, a peculiar alteration of the cornea of the eye. It consists in a semilunar yellow speck, situated at the lower margin of the cornea, without undue redness or vascularity of the eye itself. This morbid alteration gradually extends

upwards, when the disease was protracted, to the centre of the cornea, and terminated in ulceration. The lamellæ of the cornea were separated by a purulent infiltration, and pushed outwards, and in this way were detached from each other by the ulceration. Dr. Stöber regards this process as the consequence of the general debility. In one case, where the prostration of strength was considerable, he directed the insillation of opium drops into the eye, and prescribed some doses of quinia, with a nourishing diet. These means were successful, and in ten days the ulceration had cicatrized.

M. Lasserre has recently shown (*Journ. de Med. de Toulouse,*) that the fœtus and new born infant are subject to cerebral hermorrhage, as persons of a more advanced age. The effusion, he states, presents exactly the same anatomical characters. The first case observed, was one of meningeal apoplexy, in which there were effused into the cavity of the tunica arachnoid, nearly one hundred grains of viscid blood. The child was born dead at the full period. M. Lasserre ascribes the effusion in this case, to pressure on the cord during labour. In the second case, effusion had taken place into the ventricles; the fœtus had reached five months and a half, and was born in a putrid condition; the blood, which filled the whole of the four ventricles, was in smooth, polished, irregular, but moderately firm coagula. In a third case, apoplectic effusion had occurred in the posterior part of the left hemisphere in a new born child. This was followed by encephalo-meningitis. From the facts which have fallen under his observation, M. Lasserre concludes, that cerebral apoplexy does not give rise to the same symptoms, nor produce the same functional disorders in the new born infant, as in the adult, and that it is not so speedily fatal.

In a letter to the editors of the *New Orleans Med. and Surg. Jour.*, (May, 1846,) Dr. V. N. Wooten, of Lowndesboro' Ala., states that trismus nascentium is of fearful frequency in the cotton plantations of his section of Alabama. He is not prepared to compare it with other maladies in respect to frequency, but he believes that it destroys more negroes than any other single disease. In a practice of ten years he has seen a great many cases. Sometimes he has found it of such frequent occurrence, as to present the appearance of an epidemic. He has never known a white child to be affected with the disease; nor has he seen a case of decided trismus nascentium that did not prove fatal. Indeed, so certain is its termination in death esteemed, that it is considered useless to call in medical aid, after the initiatory symptoms are well developed.

Dr. Wooten has tried every plan of treatment which books, or the most anxious study on his part could suggest, but all wholly in vain.

He has made numerous post-mortem examinations, and found the

pathological appearances as uniform as in other diseases. They are as follows:—Heavy vascular engorgement of the peritoneum, throughout its whole extent, denoting the highest inflammation. All the portion surrounding the entrance of the umbilical cord into the abdomen, for a circumference of from one to three inches, was in a gangrenous condition. The liver was unnaturally heavy and stiff, with its veins fully injected with fluid blood. There was also heavy engorgement of the substance and membranes of the base of the brain, and along the medulla oblongata and cervical portion of the spinal marrow.

Dr. W. has usually observed the first symptoms of the disease to make their appearance about the time the umbilical cord comes away, and from this, supposed at first, that it was the effect of awkwardness in dressing the navel by the ignorant midwives who usually attend on the plantations, but careful investigation led to nothing conclusive on this point.

Your committee understand that in Louisiana, trismus nascentium is, also, of very frequent occurrence, and equally fatal as it has been found in Alabama. It is not, however, confined to the blacks but attacks also white children.

Mr. Dumville exhibited to the Manchester Pathological Society a preparation of spina bifida taken from a child five months old. The arrest of development occurred in the spinous processes of the third, fourth, and fifth lumbar, and first and second sacral vertebræ, which gaped widely apart. The sac, in which the cauda equina partly expanded, was large enough to contain an ounce of fluid. The tumour was punctured at the urgent instance of the friends, but at a period when the failing powers of life offered scarcely a hope of recovery. The child died with the usual symptoms.

Mr. Dumville related the particulars of another case, in which the congenital deficiency was situated in the same locality. He evacuated the sac by puncture, and the recovery was complete. The child, which was nine months old at the time of the operation, had at the period when Mr. D. spoke, attained the age of eighteen months; and its health was unexceptionable. The operation was quickly followed, in this instance, by a profuse perspiration; the face immediately became deeply congested, and there was much derangement of the stomach, attended with vomiting. The child was very fretful, had excessive twitchings, but no distinct convulsions. When the sac was quite empty, all the symptoms were aggravated, but on becoming again distended with secretion, which occasionally took place, in consequence of mechanical obstruction of the aperture, the symptoms underwent amelioration. The discharge of fluid, with more or less of the symptoms described, having lasted fourteen days, the orifice then healed over, and no further secretion of serum following, the child became convalescent, without any relapse. This

case, Mr. D. adduced rather as an exception to, than as an example of the general rule.

Judging from the aggravation of the symptoms whenever any excess of the fluid happened to drain off, it would appear, that too much precaution cannot be taken, in order to secure the evacuation of the sac as gradually, and in as constant a manner as possible; and that the plan of operation, most suitable for the attainment of this desirable end, should be adopted, and, above all, timely put in practice.

In the *Annuaire de Thérapeutique* for 1846, it is stated that the following mode of treating hooping cough, has been found very successful in the hands of M. Berger. In the first stage, the employment of a moderate course of antiphlogistic remedies, purgatives, and repeated emetics, particularly of ipecacuanha, in combination with tartar emetic. In the convulsive stage, in which the indication is to combat nervous irritation, M. Berger, being dissatisfied with the results obtained from the remedies ordinarily employed, was induced to administer the nitrate of silver, from which, he has obtained results singularly beneficial. He prescribes it in doses of from a sixteenth to a twelfth of a grain, at first three times, and afterwards four times a day; of course the remedy should not be administered in cases, where the state of the digestive organs contra-indicates its employment.

In the *Journal der Kinderkrankheiten*, Dr. Behrend of Berlin, describes a cough of a peculiar character, to which children are liable, that occurs only during the night, and which has not been before described by any author.

It is most generally observed in spring and winter; it however, also frequently occurs during the autumn, and but rarely in summer. It is seldom, if ever, observed in infants at the breast, but occurs at every subsequent period of childhood, and more frequently in boys than girls. There is no cough whatever, during the day, not the slightest catarrhal symptom, and, when put to bed, the child falls into a sound quiet sleep at the usual hour. In the course of a few minutes, however, it becomes restless, and before awaking, coughs violently. It now commences to cry, and the cough becomes more and more severe, until, in some cases, it produces vomiting: after one or two hours of suffering, the child again falls asleep, and passes the remainder of the night quietly. The cough returns at the same hour the following night, and continues sometimes for weeks and even months; finally, it begins to diminish in violence, the fits become of shorter duration, and occur at a more advanced period of the night, so that the length of the sleep enjoyed previously to its coming on, is gradually prolonged:—at length the cough disappears entirely and spontaneously. The subjects of this affection

are pale, readily fatigued, and troubled with a coldness of the feet towards evening; they eat and play, however, as usual, and appear otherwise to enjoy good health. The nocturnal cough has frequently a catarrhal character, and is generally accompanied with a mucous rattle; sometimes, the cough is dry, croupy, and whistling: the kinks are short, isolated, and uniform, and may recur every five minutes, or extend only to one or two.

This periodic cough, we are told, cannot be mistaken for croup—which has well marked symptoms; nor for hooping cough—the latter being almost always epidemic, and occurs as well during the day as during the night, and is always accompanied with a peculiar dyspnœa. In the nocturnal periodic cough, there is no true appearance of suffocation; the children do not awake suddenly, as in a fit of asthma or spasm of the glottis, but they awake slowly, after having coughed several times during sleep. It most nearly resembles the cough of catarrh or bronchitis, but it is distinguished from those by the entire absence of the physical signs, and by the nocturnal periodicity of the fits, which are followed by complete remission.

Dr. Behrend considers this cough to depend on an affection of the nerves, and bases this opinion chiefly on the symptoms, and on the circumstance of its having frequently appeared after an epidemic of hooping cough, and whilst intermittent fevers were very prevalent among adults. This latter remark has been made by several physicians whose attention was drawn to this cough by Dr. Behrend.

The prognosis, we are told, is always favourable. In one case, the periodic cough was followed by bronchitis, but this was probably merely accidental. In another case there was repeated epistaxis.

The disease, upon the whole, is generally more troublesome than serious, and demands no active treatment. Gentle purgatives, as manna with the tincture of rhubarb, given in the evening, with attention to diet and regimen are recommended. A drachm or two of the liq. acetatis ammoniæ, in a little sugar, may also be given, before putting the child to bed. One physician found small doses of quinia, given at bed-time, of great service; another found slight irritation of the skin, chiefly by means of pediluvia, and friction of the soles of the feet with roasted onions, and even enveloping the limbs, after the manner of Preissnitz, beneficial.

In *Heller's Archives*, Dr. Seitz states, that he has examined beneath the microscope, a portion of the false membrane lining the larynx and trachea of a child that had died of croup. The membrane was about half a line in thickness, and of slight consistence. It was composed almost entirely of ordinary pus globules, mixed with which were a few inflammation globules, and some other cells similar to pus globules, except in being at least as large again.

Professor Trousseau's remarks on the erysipelas of new-born children have recently been published, and are highly interesting. He

ranks the disease, very properly, among the most fatal of those to which the young infant is liable. It almost invariably terminates in death, especially when it occurs during the first month. Its danger gradually diminishes, as the child advances in age, but still, according to his experience, even when it attacks after the fourth month, one half the cases terminate fatally.

The invasion of the disease is always extremely insidious. The child appears somewhat morose; his sleep is slightly diminished, and he sucks rather less than before; with these trifling symptoms, there is associated a small patch of redness upon the pubes, which is painful upon pressure. The redness gradually spreads over the abdomen and thighs, and is, occasionally, disseminated. When the redness extends to the hands and feet, these parts acquire a degree of redness and swelling far greater than that of any other part. The genital organs, in some cases, sphacelate, in consequence of the local inflammation, and in many acquire an emphysematous appearance. In place of appearing first upon the pubes, the erysipelas has been known to extend from the areola of the vaccine vesicle, less frequently from any accidental laceration of the skin or from the excoriations so common in the cutaneous folds of the groin and other parts.

The disease at first appears perfectly local—it is not until several days have elapsed, that general uneasiness and crossness present themselves. The colour of the skin, and the expression of the countenance, often remain for some days without exhibiting any striking change, when, suddenly, an ashy cadaverous paleness is observed; the child cries incessantly, there is constant jactitation, and complete loss of sleep. These symptoms are succeeded by deep stupor and death. The pulse is at first frequent, and the heat of the skin sinks only during the fatal stupor which precedes death. Convulsions, diarrhœa, and vomiting are seldom observed. When the progress is such as we have described, peritonitis has occurred—which is, according to M. Trousseau, a frequent disease in children, and one which has not hitherto been accurately described. The duration of infantile erysipelas varies considerably, sometimes being extremely short, in others, on the contrary, being prolonged to the end of the week.

In post-mortem examinations, the cutaneous disease is occasionally the only morbid change detected; but when peritonitis, (a frequent complication) has occurred, the umbilical vein is often found inflamed, and filled with pus, as far as the transverse furrow of the liver, while inflammatory exudations are found on the peritoneal surface of the abdominal viscera.

According to M. Trousseau, infantile erysipelas is principally observed when puerperal fever prevails in the wards of the lying-in hospitals of Paris. The infants appear to inherit from their mother a *purulent diathesis*, and seem to be still, within certain limits, subject

to the same maladies as the mother, whose constitution has so lately been theirs. The peritonitis of the infant may be, therefore, as properly termed puerperal as that of the mother, because its general cause is to be sought for in the circumstances which have accompanied the last stage of child-bearing, and parturition. It is natural that the skin should be the seat of disease, from its having been so recently called upon to the performance of functions as new as they are important. In the infants predisposed to erysipelas, the umbilical cicatrix does not form readily, and the ulceration which results is sometimes the occasional—the local cause—of the cutaneous disease. With regard to treatment—M. Trousseau has tried every imagniable local application; ointments, lotions, blisters—even the actual cautery—without suspending the progress of the disease. Three cases, only, occurring within the month, has he seen recover under the use of the etherial solution of camphor, and baths containing corrosive sublimate.

Professor Lippich, of Padua, recommends the following liniment in the treatment of apthæ:—Honey 15 parts, diluted sulphuric acid one part, by weight. The ulcerated surfaces are to be occasionally brushed over with this liniment, by means of a camel's hair pencil. The proportion of sulphuric acid may be increased if the case is obstinate.

M. Chomel, as we learn from the *Gazette Medicale*, has directed attention to certain differential characters between the eruption of measles, and that of scarlatina, and has pointed out a character peculiar to measles, by means of which, he believes, that in cases of doubt, the existence of the former disease may be determined with certainty. It sometimes happens that the eruption in scarlatina, instead of exhibiting a distinct, uniform redness, presents a punctated character, so similar to that of measles, that without some degree of attention, the two affections may be readily confounded. The following, according to M. Chomel, are some of the characters, by means of which this confusion may be avoided. The red points of scarlatina are equal, uniform and symmetrical. Their colour is every where the same, as is also the size and form of the small vesicles. In measles, on the other hand, the red points exhibit great diversity in their colour, form, and dimensions. In scarlatina there are, very generally, observed small miliary papulæ, which are not usually met with in measles; and fine, small, subcutaneous ecchymoses are observed in the latter, which are wanting in scarlatina. But these shades of difference, as may readily be supposed, it is not always easy to appreciate, and yet it is important to distinguish the two diseases, not only as regards the prognosis, but as directing us in the selection of the proper prophylactic means, when they are prevalent.

There is another character to which M. Chomel attaches the greatest importance, in a diagnostic point of view—which is, the appearance of the sputa in persons affected with measles. These sputa consist of opaque nummular masses of a greyish colour, floating in a large quantity of fluid—at first sight they have all the appearance of the sputa in the second stage of phthisis—but, besides the concomitant circumstances, which are sufficient to guard against a mistake as to their nature and origin, the sputa in measles, differ from those in phthisis in this, that whilst the fluid in which the opaque matter of the latter floats is clear, in the former it is cloudy and lactescent. This peculiar character of the expectoration, according to M. Chomel, is never absent, and though not mentioned by authors, it is perhaps because they have, in general, described measles as it occurs in young children, who, it is known, do not expectorate. This character then, is of great value, in a diagnostic point of view—not only as a means of distinguishing, in doubtful cases, measles, from other affections which have a great resemblance to it, but also as a means of diagnosis, in those cases where the eruption has become suddenly suppressed, has been imperfectly developed, or is altogether wanting. It is by no means rare, especially in epidemics, to witness cases in which all the preliminary symptoms of measles may have been present, without any subsequent change manifesting itself in the skin; the slight bronchitis which almost constantly accompanies the eruption, is the only morbid phenomenon which succeeds to these initiatory symptoms. The appearance of the sputa just described, will, in such cases, it is stated, leave no doubt of the existence of a latent rubeola, such as has been described by the older writers under the name of morbillary fever, *morbilli sine morbilis*; but which might, however, with more propriety, be designated internal or bronchitic rubeola.

In a recent clinical lecture, M. Guersant, jun. notices the subject of polypus of the rectum in children, an affection of frequent occurrence, but entirely overlooked by the profession generally, until the appearance of M. Stoltz paper on the subject in 1831: previously, two cases only are to be found upon record; one published by Dr. Lange, of Berlin, in 1776, and the other by M. Schneider, in 1828.

M. Guersant points out how readily polypus of the rectum may be mistaken for prolapsus ani, and the necessity in all cases of an accurate examination.

The first symptoms are sanguineous discharges per anum with tenesmus. Defæcation gradually becomes more and more impeded, in proportion as the polypus increases in size, and is accompanied with violent efforts of expulsion, which force out from the intestines a red, smooth tumour, which is at first gradually reduced. M. Guersant has often noticed a sign which he conceives of some value—it is the presence of a groove or furrow on the surface of the fæces,

caused by the presence of the polypus; but the issue of the tumour through the anus is the only certain diagnostic sign. During the first period of the complaint the swelling is round, and slightly flattened at its sides; the external segment is more voluminous than the intestinal portion.

Authors are not agreed upon the nature of these growths—some consider them to be of a fibro-cellular structure; others on the contrary, believe them to be always of a mucous texture. M. Stoltz supposes, that in many cases, they are the result of frequently repeated prolapsus ani; a portion of mucous membrane, incarcerated in the ring of the sphincters becoming congested, swollen, and after a certain period pediculated. Such may be, in some instances, the actual manner in which polypus of the rectum is generated, but there are many exceptions. Polypus has repeatedly been observed in subjects who had never suffered from prolapsus ani, and we may add, that in several instances the insertion of the pedicle in the mucous membrane of the rectum is too high up, to admit of our explaining the production of the polypus according to the theory of M. Stoltz. M. Guersant has usually found these polypi to consist of a mucous sheath borrowed from the mucous membrane of the rectum, enveloping a spongy texture.

So long as the polypus does not issue through the anus, a sanguineous discharge from the intestine does not furnish any positive basis for a diagnosis, the finger must be introduced per anum, the pedicle of the tumour, accurately circumscribed, and the spot of its insertion precisely ascertained.

Although the prognosis is usually favourable, still, the abundance and frequent occurrence of hemorrhage may seriously injure the child's health.

The spontaneous separation of the polypus can be readily understood—the tumour gradually expelled by efforts at defæcation, drags more and more upon the pedicle, which constantly increases in length while it diminishes in diameter, until at length, it yields to the frequent repetition of the efforts, and the polypus becomes separated. Polypi thus removed may perhaps have been the unknown, and unsuspected cause of rebellious diarrhœa, which ceased upon their spontaneous expulsion, after remedies of various kinds had previously been exhibited without success.

M. Guersant for the removal of these polypi, prefers, to all other means, the simple ligature—by this all danger from loss of blood is obviated, and the little patients suffer no pain. In general, when the insertion of the pedicle is not very high, the threads may be simply carried, with the finger, round the neck, but in the contrary case, the introduction of the speculum ani considerably facilitates the operation.

In the *Bulletin general de Thérapeutique Med. et Chirurg.* Dr. Bourgeois states that he has frequently met with polypus of the rectum,

in boys between 2 and 7 years of age, and in other respects in good health. In all the cases, there occurred, without any apparent cause, a discharge of blood from the rectum after each evacuation. The discharge became gradually somewhat increased in quantity. In the course of some weeks there was protruded from the anus, after a stool, a small tumour resembling a strawberry, which, at first, after an hour, spontaneously returned. The hemorrhage was never considerable, and very little or no pain was complained of. The small red tumour was of a fibro-cellular texture, contained but few vessels and was internally of a greyish white colour. The thin pedicle by which it was attached to the mucous membrane of the intestine, was implanted either within the internal sphincter or between that and the external sphincter.

Dr. B. extracts the polypus by seizing it with two fingers and gently twisting it so as to break the pedicle.

If the polypus does not protrude, it should be brought externally by injections, laxatives, and the introduction of the finger.

A case of polypus of the rectum is recorded, in the 27th number of the Medical Examiner, by Dr. Burns, of Frankford, Philadelphia county. It occurred in a girl five years of age. This case is only interesting from the uncommonly large size of the tumour. When about two and a half or three years old, her mother observed that the child suffered much distress previous to the act of defæcation, which could not be accomplished until there took place the protrusion from the anus of a dark red fleshy substance, which bled more or less each time it became protruded. It was, according to the mother's account, exceedingly troublesome, requiring to be replaced within the sphincter ani after each evacuation. The tumour in a short time became associated with a second of a smaller size; this, after continuing some months, separated from the larger one. The remaining polypus continued gradually to enlarge. When seen by Dr. Burns, the child was considerably reduced in consequence of the discharges of blood. She had a distressed, anxious look—her physical development was good—her eyes and skin were dark, her hair brown, and her countenance open and intelligent. On examination, a polypus was detected protruding from the anus, as large as a small seckel pear. On dilating the anus as much as possible, by traction in opposite directions, the pedicle was found to be inserted into the mucous membrane of the rectum a short distance above the sphincter. A ligature was applied which caused some pain—in about twenty hours the polypus separated, and in two days after the ligature came away. Eight months have elapsed, (March, 1847) since its removal, and there has been no return of the disease, and no hemorrhage—the functions of the part are normal, and the child's general health and appearance have become very much improved.

It is a generally received opinion, remarks M. Duclos, that fissure of the anus is not a disease to which infants are liable; the observations of M. Trousseau made at the Neckar Hospital, prove, however, that this opinion is unfounded, and infants even during the period of suckling, are subject to this distressing malady. In the *Journal de Chirurgie*, M. Duclos details two cases which occurred in the practice of M. Trousseau.

The first is that of a little girl, one year old, under treatment for white swelling of the knee. The patient had been constipated from her birth, but more especially for the four previous months—the bowels being moved only every third or fourth day. Two months before, the mother had remarked, that every time a stool occurred, the child screamed violently. The pain appeared to commence with the effort of defæcation, to continue during the passage of the fœcal matter, and to be prolonged for a few seconds afterwards. For the last month, more especially, defæcation had been exceedingly painful, and at each stool the child had voided a few drops of blood, either before or after the fœces, but never mixed with them. Sometimes, the child, after a powerful effort, would void a few drops of pure blood, scream violently, and make an effort as if to prevent the escape of the fœces, in which case no stool took place. The general health was very good. On examining the anus, the circumference was found to be perfectly healthy, but on deeply separating the folds, at the anterior part and between two folds of skin, a fissure, a millimetre in width, and about five millimetres in length, of a red colour, was distinctly perceived. It was the more clearly seen, as the child screamed violently and thus protruded the anus. The constriction of the anus was so great that the extremity of the little finger could scarcely be introduced. An enema of one scruple extract of rhatany, dissolved in three ounces of water, was prescribed. The enema was retained for five minutes, and when discharged, brought away some soft fœces. The enema was repeated daily for five days. Each time the passage of the fœces appeared less painful, and on the sixth day the injection was discontinued. The motions were then easy, free from blood or pus, and unattended with pain. The child left the hospital ten days after, entirely cured.

The second case occurred in M. Trousseau's private practice. The child was eight months of age, well developed, and in previous good health. It had been suckled by the mother until the age of six months and a half. It was then weaned, and was subsequently attacked with violent diarrhœa, which gave way under the use of emollients. The diarrhœa was followed by obstinate constipation. This state had existed for about eight days, when the child was seized, during defæcation with violent pains at the anus, and the fœces were found tinged with blood. From that time, the child suffered great pain in defæcation, and for some minutes afterwards. The fœces were hard and generally tinged with a few drops of blood.

The constipation continued. General condition satisfactory. On examining the anus, there were found around its orifice a little erythema and eczema, which had been occasioned by the diarrhœa and were fast passing away. Behind, and to the left, on separating the folds of the anus, a fissure about two millimetres in length and one in depth, of a rosy colour, was discovered. It was very distinctly seen on the child's protruding the anus in the effort of defæcation. The anus was considerably constricted. The same treatment was pursued as in the former case, and with equal success. The fissure cicatrized completely in about ten days, all pain in the evacuation of the fœces disappearing.

In these cases, says M. Duclos, the fissures were perceptible to the eye, but the seat of the pain, the mode of its manifestation, and the slight hemorrhage in defæcation, could leave but little doubt in the mind of the observer, as to the nature of the disease, even in the absence of ocular demonstration. The symptoms do not, however, if we judge from these cases, present absolutely the same form as in the adult. In the latter the pain is generally most severe during the first hours after the excretion of the fœces; often it gradually increases for some time after a stool, until it attains an intolerable intensity. In the case reported above, nothing similar occurred; the pain seemed to cease a few minutes after the escape of the fœces, only to reappear on the bowels being again moved. Nothing appeared to indicate the presence of the slightest pain after the excretion of the fœcal matter. Another circumstance is worthy of notice, viz; the slight hemorrhage which invariably accompanied each alvine evacuation. In adults extensive and very painful fissures may exist, without there being the slightest loss of blood. M. Velpeau appears even to think that it is the general rule.

Dr. Capitaine recommends simple syrup, saturated with hydrate of lime, as an antacid, in doses of from one scruple to half a drachm. At the Neckar Hospital it has been given with much benefit instead of cow's milk in the diarrhœa of children.

In the nocturnal incontinence of urine in children, Dr. Morand, it is stated in the *Journal für Kinderkrankheiten*, has long been in the habit of employing belladonna, internally. It is in the incontinence from debility, only, that this remedy is of use. Its mode of action the Doctor is unable to explain. He gives it in increasing doses, which must be continued sometimes for two, three, or four months in succession. He commences with a pill containing 3-5 of a grain of the extract night and morning, for children between four and six years of age. If no effect be produced at the end of a week, he orders a third pill daily, at noon, and after fourteen days, a fourth is necessary. With children between eight and fifteen years he begins with three pills, increasing the number as above. If signs

of narcotism supervene, the medicine must, of course, be for a time suspended.

Dr. Berenguier has observed, that in his neighbourhood, in the department of Tarn, incontinence of urine is often caused by an obstinate, intractable form of intermittent fever. The children brought to him for treatment were between seven and fourteen years of age. They were anæmic and debilitated. The remedies he found most successful were, copaiba, laudanum, and protoxide of iron, made into pills, in the proportion of three parts by weight of the former to six of the latter. Of this mass one pill, weighing from two to three grains, was taken at each meal, and after two or three days an additional one, until the patient came to take ten daily. He found, with Trousseau, that iron, particularly in the case of children, deranges the stomach less when taken after than before meals. Along with these pills, an infusion of the *Folia Juglandis* was ordered as a common drink.—(*Dublin Quarterly Journal of Medical Science, May*, 1846.)

Dr. Schultz speaks in praise of the quassia amara, in the form of injection, for removing ascarides from the intestines, where their presence causes violent pruritis ani. He prepares each injection with four drachms of quassia, to about four ounces of fluid, and he states that this will invariably procure the expulsion of a large quantity of these entozoa.

In a highly interesting paper contained in the *New York Journal of Medicine*, (Sept., 1846,) Dr. John B. Beck points out the manner in which the effects of emetics are modified in the infant subject. He draws the following valuable practical inferences from his investigations:—

1. As a general rule, we need not be afraid of vomiting the youngest child, provided the means used be mild, such as ipecacuanha, &c. The mere act of vomiting is attended with no danger, while the remedial agency of an emetic is one of great power and value. Besides acting on the stomach, it extends its influence to the mucous membrane lining the pulmonary organs, promoting secretion in the first place, and then aiding in dislodging and ejecting morbid accumulations; accordingly, in pulmonary affections, there is nothing so efficacious.

2. The vomiting induced by the preparations of antimony ought to be resorted to with great caution in very young children, and should never be used except in those cases where a sedative effect is required, and can be borne with safety. Inflammatory excitement ought then always to be present to justify its use in a young child; where the object is simply to evacuate the stomach, it ought never to be thought of. In such cases as croup and pneumonic inflammation, it may be justifiably and beneficially used. In those cases it

will be found, that the system can bear the sedative influence of the article much better than it can in the ordinary condition of the system. Even here, however, care should be taken not to push the article too far, as dangerous collapse has been known to be the result.

3. The *continued use* of tartar emetic in young subjects cannot be too specially guarded against. It is in this way, probably, that it is so apt to prove injurious. A single dose, even though it vomits very freely, may be borne with comparative impunity, while the repetition of it may keep up nausea and internal irritation, so as to cause injurious prostration. This is very likely to happen in cases of a chronic character, like hooping cough. Although mild emetics are among our best remedies in this disease; and where the subject is old enough, a single emetic of antimony is frequently exceedingly beneficial, yet the repeated use of antimonial emetics, as is too often the case, appears to be a great error in practice. It is not indicated by the nature of the symptoms, and violates a great rule which ought always to be observed in the management of chronic cases, and that is, not to break down unnecessarily the strength of the patient. Dr. Armstrong says, that "it is a notorious fact, that the hooping cough is far more fatal in London than in the country, and I believe," he adds, "that this arises from the very free use of antimonials in London."—(*Lectures*, p. 245.) Again, in ordinary catarrhal affections in children, a good deal of mischief is frequently done by the continued use of expectorant mixtures containing this active article. The hive syrup of Dr. Cox, which is now in every family, and is given on the slightest occasions to infants, without even consulting a physician, has, I am convinced, done a great deal of harm. I say this without wishing to undervalue this preparation. In proper cases it is really a useful article, but persons out of the profession ought to know, that its principal efficacy is owing to the quantity of tartar emetic which it contains, and that the indiscriminate use of it, in cases where mild articles are required, must be injurious. Every ounce of Coxe's Hive Syrup contains one grain of tartar emetic. My friend, Dr. McCready, has communicated to me the particulars of a case in which a child between four and five years of age, labouring under hooping cough, manifestly sunk under the too frequent use of this article. The exhibition of it had been continued about eight days, when symptoms of intestinal irritation came on, accompanied with great general prostration, which in a few days ended the child's existence.

4. As the effects of tartar emetic on the system cannot always be measured by its emetic operation, even in the adult, this fact ought to serve as a caution against the too common practice of giving repeated doses of it to produce vomiting in children, when they happen to be narcotized. While it fails to vomit, it may still operate as a poison to the system. In all cases of this kind, the proper method of treatment is, not to push the emetic, but to en-

deavour to restore the sensibility of the patient, and then sometimes vomiting comes on at once.

5. In using tartar emetic, in children especially, regard should be had to their constitutions. In those naturally delicate, and especially where the scrofulous diathesis exists, it should never be used if it can be avoided. Prostration is much more apt to ensue in them, and where the article is persisted in for any length of time, it is sure to do harm. It is in such constitutions, when labouring under hooping cough, and where the use of this article has been too long continued, that the baneful effects of it are most strikingly observed.

6. It is perhaps hardly necessary to say that if tartar emetic be an article of such danger, the younger the subject to whom it is given, the more likely it is to do harm. In children under a year, I should say, as a general rule, it ought never to be used. During that period, the powers of life are too feeble to bear so active a remedy, at the same time that all the beneficial effects of an emetic may be gained from the use of ipecacuanha, or even milder means.

In the *Journal fur Kinderkrankheiten*, six cases are related by Dr. Sobotha, of Vienna, in illustration of the dangerous effects occasionally resulting from the exhibition of even very minute doses of opium to infants. The *Gazette Medicale*, in commenting on these cases, alludes to some other instances in which minute doses of opium had proved injurious to infants. Among these is a case recorded by Mikisch, in which a few teaspoonfuls of a solution containing two drops of laudanum, produced symptoms of poisoning. In a case seen by Dr. Köchlin, the exhibition of one drop of tinctura opii was followed by convulsions. Wendt mentions the case of an infant who died after taking a mixture containing four drops of laudanum. Many similar instances are referred to in Taylor's Manual of Medical Jurisprudence, and the works of other writers on that subject, and some excellent observations on the dangers attending the use of opium in the cases of young children, have been published by Dr. John B. Beck, in the New York Journal of Medicine.

Stated Meeting, May 4th, 1847.

Dr. Wood, Vice President, in the chair.

Present, twenty-four members.

Edward Hartshorne, M. D., J. Dickinson Logan, M. D., and G. Emerson, M. D. were duly admitted as Fellows of the College.

The Committee on By-Laws was continued.

The following report of the Censors was received.

At a meeting of the Censors, the case of Dr. Edward Y. Howell, submitted for their consideration by a resolution of the College passed on the 6th inst., being taken up, it was resolved, that the following preamble and resolutions be submitted to the College at their next meeting:—

Whereas, Dr. Edward Y. Howell, formerly of the city of Philadelphia, and now of the village of Manayunk, was duly elected a Fellow of the College in June, 1832, and paid his initiation fee in October, 1832, but did not sign the Constitution on account of the records not being duly at hand at the time of the said payment: And, whereas, The said Dr. Edward Y. Howell shortly afterwards removed beyond the limits of the city and incorporated districts, and has since that period chiefly resided beyond said limits: And, whereas, He is still desirous to sign the Constitution and to possess the diploma, as evidence of his former fellowship, which has ceased in consequence of his residence beyond the limits prescribed in chap. ii. sect. 2, of the Ordinances and By-Laws. Therefore,

Resolved, That Dr. Edward Y. Howell, now of the village of Manayunk, be permitted to sign the Constitution and to receive a diploma, to be dated in 1847, and duly authenticated, and that the Secretary enter this preamble and resolution upon the minutes.

Charles D. Meigs,
J. Wilson Moore,
Henry Bond,
S. Jackson.
} *Censors.*

On motion of Dr. Condie, the above resolution was adopted.

On motion of Dr. Fox, it was resolved, that the delegation from this College to the National Medical Convention be increased by the addition of three members, when the following Fellows were appointed:—

Joseph Carson, Rene La Roche, Charles R. King.

A communication was received from Dr. Arnold, of Savannah, Georgia, acknowledging his election as an Associate.

Special Meeting, May 11th, 1847.

Dr. Bond in the chair.

Present, twenty-nine members.

The College was convened in obedience to a call of the President, at the request of eight members, to pay the proper testimony of respect to the memory of our late Fellow, Dr. George McClellan, who died suddenly on the morning of the 9th inst.; Upon the motion of Dr. Bell, the following preamble and resolutions were adopted:

Whereas, By the sudden demise of Doctor George McClellan, in the period of maturity of intellect, and in the enjoyment of extensive professional usefulness and reputation, this College, of which the deceased was a Fellow, and the community at large, have sustained a loss which will be long felt, as it is now deeply deplored. Therefore

Resolved, That the College will attend the funeral of its deceased Fellow, Dr. George McClellan, as a mark of their respect for his talents and his worth.

Resolved, That the College tender to the family of the deceased their sincere sympathy and condolence for the very great and irreparable bereavement they have sustained in the death of a most kind and affectionate husband and parent.

Resolved, That Dr. Samuel G. Morton be requested to prepare a biographical notice of our deceased Fellow, to be read before this College.

Resolved, That a copy of these resolutions be transmitted to the family of the deceased, and that they be published in the daily papers, and in the Professional Journals of the city.

Resolved, That the College adjourn to meet at nine o'clock to-morrow morning, to proceed in a body to attend the funeral of their deceased Fellow.

SUMMARY

OF THE

TRANSACTIONS OF THE

COLLEGE OF PHYSICIANS

OF PHILADELPHIA.

FROM JUNE TO NOVEMBER, 1847, INCLUSIVE.

Stated Meeting, June 1st, 1847.

Dr. WOOD, Vice President, in the chair.

Present, twenty-four members.

JOHN L. ATLEE, M. D., of Lancaster, was duly elected an Associate.

The Publishing Committee reported that they had issued the 2d No. Vol. 2, of The Summary of Transactions.

Dr. PARRISH presented to the Library of the College, the following works:—

D. Laurentii Heisteri Compendium Anatomicum. 1732.

A Treatise on Asthma, by John Floyer. 1726.

Dr. KIRKBRIDE presented,

The first five Reports of the Pennsylvania Hospital for the Insane.

The President communicated in writing his nomination of the Standing Committees for the ensuing twelve months, as follows:—

Library, Drs. West, Pepper, Reese.
Public Hygiene, Dr. Bell.
Theory and Practice of Physic, Dr. Jackson.
Surgery, Dr. Parrish.
Midwifery, Dr. Warrington.
Diseases of Women, Dr. Bond.
Diseases of Children, Dr. Condie.
Materia Medica, Dr. West.
Meteorology and Epidemics, Dr. Moore.

The Treasurer presented the Annual Statement of his receipts and expenditures, which was referred to the Censors.

The following proposition to amend the By-Laws was presented—
That so much of the Code of Medical Ethics of the National Medical Association as is not already embraced in the 10th Chapter of the Ordinances and By-Laws of the College, be enacted into a By-Law for the government of the Fellows.

A conversation took place in reference to the cases of typhus fever that have recently occurred in Philadelphia, more particularly among the immigrants from Ireland.

Dr. Condie stated, that about the middle of April last, a vessel arrived at the Port of Philadelphia, with a number of immigrant passengers on board, several of whom were labouring under small pox; she was immediately ordered by the Board of Health to proceed to the Lazaretto, where the sick were removed from on board into the hospital, and the ship detained for purification. During the continuance of the vessel at the Lazaretto, a number of the passengers were attacked with typhus fever. Since the period above referred to, several vessels have arrived at the Lazaretto, with immigrant passengers from Ireland, among whom the typhus fever prevailed to a greater or less extent, and in the majority of cases, of a very severe grade.

The passengers on board of these vessels were, generally speaking, of the most indigent classes of society, and evidently in a condition strongly predisposed to disease previously to their embarkation, from the effects of insufficient food, inattention to personal cleanliness, and the various other discomforts to which they had been subjected before their leaving Ireland, and whilst they remained at Liverpool, previously to entering on ship board. Their private sea-stores were, also, in many instances, of inferior quality and insufficient in quantity.

In repeated instances, after their arrival at the Lazaretto, passengers from on board of vessels in which the typhus fever prevailed, and who had escaped the disease during the entire voyage

were attacked—some within a short period, others not for several days. It is a curious circumstance also, that, in numerous instances, immigrants who had arrived from Europe apparently free from disease, and had so continued for two, three or more weeks after their arrival in the city, have been then attacked with fever, similar in all respects to the disease as it presented itself in those on ship board, or who were attacked immediately upon their arrival.

The fever, in the cases seen by Dr. Condie, was of the well marked typhus character. It was, in general, ushered in by a sense of chilliness, or even a distinct chill, with great prostration of strength of both body and mind, indicated by disinclination to motion, indifference of the patients to their own condition, as well as to surrounding persons and objects; and often by obtuseness or great confusion of mind, sometimes delirium. Pain in the head, back, and limbs was an early and very constant symptom, as was also sleeplessness, and some degree of delirium. The eye was usually dull and heavy, and the countenance expressive of indifference or melancholy. The pulse was in general accelerated, soft and regular; the respiration slightly accelerated; the skin warm and moist; the centre of the tongue covered with a slight coating, moist, and of a yellowish colour; the bowels were in general costive, and the abdomen flaccid and retracted rather than distended; there was increased thirst with loss of appetite, but without nausea or aversion from food. The face was pale, though in general the cheeks were slightly flushed. As the disease progressed, the mental powers became more oppressed, the eyes suffused and vacant, and the cheeks of a dusky red colour. The patients were often in a state of imperfect sleep during the day, but at night were occasionally restless, and frequently delirious. There was usually obtuseness of hearing, sometimes amounting to almost complete deafness. Subsultus tendinum was an almost constant symptom, and in many cases there was an almost constant twitching of the muscles of the face, particularly those about the mouth. The skin became at an early period dry and hot; the pulse increased in frequency, and became feeble, and undulating; the tongue became dry; in most cases it was covered with a dark brown crust, and often cracked; the teeth and gums being at the same time covered with dark coloured sordes. The surface of the body was in almost every case thickly beset with petechiæ, differing in size; of a purplish red colour at first, but acquiring a darker hue as the disease progressed.

The bodies of the patients exhaled a peculiar odour, often particularly offensive. Diarrhœa was a very frequent symptom; the discharges being composed of a yellowish or brownish fluid. Hemorrhage from the nose and gums was present in many cases, the discharge being small in quantity and of a pale colour. The urine was in general spare in quantity and of a brownish colour. The duration of the disease was various. In fatal cases, death occurred

at different periods between the fourth and twelfth days. In those cases which terminated favourable, an entire solution of the disease occurred at some period between the seventh and twentieth days, and the stage of convalescence generally continued from four days to a week.

The disease, when placed at an early period under an appropriate treatment, was not found to be of a very intractable character. The period of convalescence was often attended with diarrhœa, which in many cases was difficult to control. Relapses from imprudent exposure or from errors in diet were not unfrequent.

How far the disease is contagious the few facts in the possession of Dr. C. are insufficient to lead him to any positive conclusion. Dr. Jones, the Physician of the Lazaretto, has been attacked with the disease, and obliged to relinquish his station. The Doctor does not know of any well authenticated instance in which the disease has been communicated from the newly arrived immigrants to the persons in attendance upon them or residing in the same houses or neighbourhoods.

A nurse, who was employed at the Lazaretto, came up to the city in apparent health, and was soon afterwards attacked with the fever.

The disease demanded invariably a stimulant and tonic treatment, with the addition of such remedies as were required to meet particular symptoms.

Dr. Benedict, Physician to the Blockley Hospital, in reply to queries addressed to him by several Fellows, stated that about 150 cases of ship fever had been admitted into the hospital under his charge during the present season. The disease varied from a mild, manageable form of typhus, to the most violent and malignant. Many of the patients when admitted were entirely stupid and insensible to external impressions, they could neither see, hear or speak; to so great an extent were the senses benumbed that flies would collect on the face and about the eyes without being noticed by the patients. In other cases where the sensations were more acute, the patients complained of intense neuralgic pains shooting through the lower extremities. Tympanites was very rare; there was no vomiting; in some instances the bowels were constipated, while in other cases there was exhausting diarrhœa. Dr. B. had noticed that the diarrhœa prevailed more amongst the female than the male patients; the discharges were copious and frequent, rarely bloody, but oftentimes mucous. Intense heat of skin prevailed, with an intolerable odour from the body, which it was impossible to remedy by ablutions or by any correctives; there was also an intense desire for cold drinks. There was no remarkable change in the secretion of urine, but an inability to pass it existed in many instances, requiring the use of the catheter; petechiæ were generally present; in some instances

spots were red, in others brown or copper coloured. There had been but a single case of epistaxis. The tongue was generally dark and swollen, and the patient entirely incapable of protruding it. The duration of the disease varied from five or six days to several weeks, and there was a great variety in the symptoms by which it was marked.

There had been but two cases originating in the hospital; one in a resident physician of the house, and the other in a nurse. The latter terminated fatally. The resident physician has been very ill but is now nearly well, having begun to convalesce on the fifth day. The proportion of deaths had been about one in ten. The class of persons affected were almost exclusively Irish immigrants; several German immigrants admitted into the house, appeared to have a fever of a less grave character. Inflammation and suppuration of the parotid gland had occurred in several instances; and in a few cases the fever was attended by erysipelas.

In about one half of the fatal cases, a post mortem examination had been instituted; the opposition of relatives preventing its being more generally practised. The leading morbid appearances were: softening of the important viscera, without other structural lesion; the liver, heart and lungs could be torn by the slightest force; the mucous membranes were also softened; in but one case was there ulceration of the mucous membrane of the intestines, and that was not in the situation of the glands of Peyer and Brunner. This case had been protracted, and the lesions resembled those seen in chronic dysentery. The brain was only examined in three instances; there were no remarkable appearances detected in this organ.

The treatment consisted mainly in the free use of stimuli, tonics, and nutritious food.

The patients almost lived on milk punch, and quinine was administered, in grain doses, every hour or two. Active purgatives were rarely given, and where it was necessary to open the bowels, castor oil was generally preferred. Ice and iced drinks were given freely to the great comfort of the patients.

In those cases where diarrhœa was an accompaniment of the disease, it was generally controlled by laudanum injections, or by tincture of kramesia in the same form; acetate of lead was tried, but the results were not satisfactory. Where patients could take nutriment and stimuli freely, they generally rallied in a few days, though they regained strength very slowly.

In answer to an inquiry from Dr. Bell, Dr. Benedict remarked, that wine and brandy were not relished by the patients, and were often refused. This was explained by several Fellows on the ground of their conscientious scruples, many of them being temperance men.

Dr. Bell remarked, that it is generally known that in grave typhus, wine is highly enjoyed by the patients, and may be taken in

very large quantities without producing the same phenomena it would if taken to the same extent during a state of health.

Dr. Wood inquired if any of the cases which had fallen under the observation of Dr. Benedict, had appeared to originate in the city.

Dr. Benedict replied, that a few cases had been received from the boarding houses along Water street; in some cases these patients had been attacked several weeks after their arrival, they having been in a state of apparent health when they landed. They were all however immigrants of the present season, and very generally from Ireland.

Dr. Jackson, (late of Northumberland,) thought it not at all improbable that persons should be attacked with the disease weeks after their arrival, from the miasm evolved by the unpacking of the clothing, blankets, &c. which had been used on ship board. He believed fully in the contagious character of this form of fever, and that the germs of it often lay concealed for a long time in foul clothing. He had known it to break out in healthy districts of country which had been visited by recently arrived immigrants, after these had exposed their foul clothing to the air. If the effects of the inhalation of ether, Hoffman's Anodyne, &c. are found to be active upon the system, why need we doubt the power of a contagious miasm taken in the same way?

Dr. Condie stated, that so far as related to the immigrants who had arrived at this port direct from Europe, since the 17th of April last, proper measures had been taken in every instance to purify their clothing and effects. He doubted, therefore, whether a contagion could be introduced by them capable of producing the disease, in the manner referred to by Dr. Jackson.

Dr. Parrish stated a case of ship fever, which had fallen under his observation, at an English tavern, in Cherry street. The patient was an English mechanic, a middle aged man, of temperate habits, and not excessively poor. He and his wife arrived in New York in the latter part of the 4th month, (April) and came on to Philadelphia in the course of a few days. The vessel was closely packed with immigrants, chiefly from Ireland, many of whom had not sufficient even of the commonest food, to supply their necessities. On the passage, fever broke out amongst them, and six of their number died before reaching New York, many others being sick when they landed.

This individual had occupied a berth on deck, had had abundance of food and wanted for nothing on the passage. After landing at New

York he was obliged to return to the vessel to get a chest, where he found the captain sick, and was informed that one of the steerage passengers had died on the previous night. On the following day he left for Philadelphia, and soon after arriving here felt sick, with pain in the back and limbs. On the fifth day after leaving New York he became alarmingly ill and sent for a physician, who was not apprised of the history of the case, and did not suspect the nature of the disease. On the fourth day of his illness, Dr. P. saw him in consultation, he was then far advanced in a malignant typhus. The pulse was exceedingly frequent and feeble, he had subsultus tendinum, constant delirium, dry chapped tongue, sordes about the gums, great heat of skin, small red petechiæ covering the body and extremities, constant jactitation and restlessness, without sleep. There was no diarrhœa or tympanites. Active stimuli were directed, with blisters to the inside of the legs, and injections of rich soup every two or three hours; but the most vigorous efforts failed in inducing reaction, and he sunk on the sixth day of the disease.

A month had now elapsed, and no case of sickness had appeared in the house, though several of the inmates were very assiduous in their attentions to the sick man.

Dr. Stille thought it desirable to ascertain with accuracy, the period of time which had elapsed since patients had been in contact with those affected with the disease. The period of six weeks which had been mentioned, appeared to him unusually long for the disease to be dormant in the system. In these cases it is very probable that those affected had been in contact with persons, who may have sickened soon after landing.

Dr. Godon inquired of Dr. Benedict if petechiæ had been discovered on the surface of the internal organs. He had examined a man who died of typhus fever in a vessel lying near Gibraltar, and found the surface of the liver, stomach, and intestines covered with petechiæ.

Dr. Benedict replied, that no such appearances had been noticed in his examinations.

Dr. H. Gibbons remarked, that he differed from Dr. Jackson in his views of contagion; though he did not deny that the forms of fever under consideration may be propogated by contagion; yet he believed that they may also spread independent of it. In those individuals who had been attacked after being in the country for several weeks, there were causes, in his opinion, amply sufficient to account for the disease, without referring to a contagious miasm. The change of climate, the sudden transition from a meagre farrinaceous diet, scarcely sufficient to support life, to the free use of

animal and vegetable food, were causes amply sufficient to induce an attack, in systems predisposed to disease, from previous starvation or at least very deficient diet, and long confinement on ship board. He was not at all surprised at disease originating under such circumstances; and anticipated an increase of it during the summer months, from the great influx of immigrants, to which we will necessarily be subjected. In confirmation of the view, that typhus fever may arise in sections of country generally healthy, and without being introduced by contagion. Dr. G. referred to several epidemics of this disease which had broken out in portions of Chester county in this State, within the past few years.

Dr. Jackson replied, that the irregularities referred to by Dr. Gibbons, he was well aware would produce fever, but not *typhus fever*. This, in his opinion, is a specific disease, produced by a specific cause.

Dr. J. stated some additional facts, proving the communication of the disease from foul blankets and other clothing, and of its spread by contagion in districts thus infected.

Dr. Gibbons remarked, that he did not deny that it was possible for the disease to originate in this way; but he thinks also, that it may arise from other causes, and that it is not specific in its character, any more than is yellow fever, or the other malignant forms of fever.

Several of the Fellows inquired whether scarlet fever had been observed in the city or districts.

Dr. Condie stated that the disease prevailed to a considerable extent in the southern sections of the city. In some cases it was very malignant, death often occurring within thirty-six and forty-eight hours from convulsions.

Dr. Gibbons stated the case of a female child, aged 11 years, who complained for the first time of chilliness at ten o'clock in the morning; this was followed by fever and slight sore throat. At three o'clock, P. M., Dr. G. saw her, and found that the eruption of scarlatina had appeared, with smart fever, but no alarming symptoms. It seemed to be an open, developed case of the disease. On visiting the child at eight o'clock on the following morning, he found her dying. An unfavourable change had occurred in the night, with delirium, &c.

The treatment directed at the first visit was mild; Dover's powder in small doses, sponging, cool drinks, &c.

Dr. Warrington mentioned a case of violent spasms, occurring in a pregnant female under his care, which seemed to be benefited

by the inhalation of Hoffman's Anodyne; a handkerchief being wet with the latter and held to the patient's nose.

Dr. Parrish exhibited some patches of cuticle, which came off the body of a child fourteen years old, after an attack of scarlatina, remarkable for their size and peculiar texture.

Stated Meeting, July 6th, 1847.

Dr. Wood, Vice President, in the chair.

Present, twenty members.

Jonathan Knight, M. D. of New Haven, Connecticut,
Alexander H. Stevens, M. D. of New York, and
J. McNaughton, M. D. of Albany, N. Y., were duly elected Associates.

The Censors reported that the accounts of the Treasurer had been audited and found to be correct.

The Committee to whom was referred so much of the By-Laws of the College as relates to what is called the right of the floor, made a report, to which was appended a resolution recommending that in Chap. V. Sect. 6, of the Ordinances and By-Laws, the words "or for the purpose of explanation," be stricken out.

The report was received, and the recommendation laid upon the table.

The Committee on the Library presented their Annual Report, as follows:—

The books belonging to the Library of the Philadelphia Medical Society, which some time since were placed in the custody of the College, have been properly taken care of, and deposited in a case especially appropriated to that object. The key of this case remains with the Library Committee, and the books may now be procured by the Fellows under the same regulations as govern the loan of books from the Library of the College.

This latter, which, since its removal to its present location, has excited more than formerly the attention of the Fellows, has received during the past year several valuable contributions in books, from

different sources, all of which have been regularly noted in the published Summary of the Transactions; an enumeration of them is in consequence omitted in the present report.

The valuable works now in course of publication by the Sydenham Society of London, have been all regularly received and placed on the shelves of the Library.

The table of the College still continues to be supplied with the various medical periodicals published in different sections of the United States, and also by one published in Canada. All the journals of the country, with the exception of two, viz. the New Orleans Medical and Surgical Journal, and the Medical Examiner of this city, are received in exchange for the Summary of the Transactions of the College, and the fact is here noticed, in proof of the importance of this publication to the College, independently of its intrinsic worth, and the credit which it reflects upon us by making known the doings of our sessions.

In arranging the different periodicals, with a view to their preservation, by having them bound in volumes, if the College should so direct, your Committee regret to find that several of the numbers are missing. These numbers have not perhaps been received; it is probable, however, that some of them are in the possession of Fellows of the College who have borrowed but neglected to return them to the table. The Committee have, therefore, thought it would be well to append to their report a list of the missing numbers, in order that their restitution may possibly by this means be effected. They are as follows:—

Western Journal.—Vol. IV. No. 1; Vol. V. No. 6. Vols. VI. and VII. are complete.

New York Annalist.—Vol. I. No. 14.

Buffalo Medical Journal.—Vol. I. Nos. 1, 2, 8; Vol. II. No. 8.

New York Journal.—The No. for July, 1846.

Missouri Medical and Surgical Journal.—Vol. I. Nos. 6, 11, 12; Vol. II. Nos. 1, 3, 4, 5, 6, and 11.

British American Journal of Medical and Physical Sciences.—Vol. I. Nos. 1, 2, 3, 6, 8, 9, 10 and 11.

Illinois and Indiana Journal.—Vol. I. No 1.

By direction of the College, a *dead-latch* has been placed upon the door of the Hall, keys for which may be procured by the Fellows. By this arrangement, however, access can only be obtained to the periodicals which lie during the month upon the table. It is desirable, therefore, that some plan should be adopted by which all the books belonging to the Library may be made accessible to the Fellows more frequently than at the Stated Meetings of the College. With such a view the Committee offer the following resolution, namely:

That the keys of the Library of the College be left in some specified place, to enable the Fellows to have access at all times to

the books; it being however distinctly understood as a binding parole obligation, that no book shall be taken from the College chamber, excepting on the evenings of the Stated Meetings of the College, or at such other times as may be permitted by the Library Committee. These conditions to be made known by means of a printed placard, conspicuously displayed upon the Library cases.

The Committee would also recommend the adoption of the following resolution, namely:

That the Library Committee be authorized to have the different periodicals belonging to the College, the sets of which are complete, neatly and appropriately bound.

On motion, the report was accepted, and the resolutions proposed by the Committee adopted.

A copy of the proceedings of the National Medical Conventions of 1846 and 1847, was presented to the Library, by the National Medical Association.

It was, on motion, *Resolved*, That the resolution in relation to the adoption of the Code of Medical Ethics of the National Medical Association, offered at the last meeting, together with the 10th Chapter of the Ordinances and By-Laws of the College, be referred to a Committee, with instructions to report a code for adoption by the College.

Committee, Drs. Hays, Jackson and Wood.

Agreeably to the provisions of its Charter, the College then proceeded to an election for Officers for the ensuing twelve months, which resulted in the choice of the following:

President.

THOMAS T. HEWSON, M. D.

Vice President.

GEORGE B. WOOD, M. D.

Censors.

Charles D. Meigs, M. D.
Henry Bond, M. D.
J. Wilson Moore, M. D.
Samuel Jackson, M. D.

Secretary.

D. Francis Condie, M. D.

Treasurer.

J. Rodman Paul, M. D.

Dr. Coates exhibited some extract of stramonium, prepared by a method, in relation to which he promised at an early period to present a communication to the College.

Dr. Bell was, at his request, excused from serving as a member of the Committee appointed to inquire into the subject of quackery.

Stated Meeting, August 3d, 1847.

Dr. Bond, in the chair.

Present, twelve members.

A communication was received from the Secretary of the American Philosophical Society, acknowledging the receipt of No. 2, Vol. II. of the Summary of the Transactions of the College.

Communications were received from Dr. John L. Atlee, of Lancaster, Pennsylvania, and from Dr. James McNaughton, of Albany, New York, acknowledging their election as Associates of the College.

The Library Committee reported that there had been presented to the Library by the author, a Treatise on the Practice of Medicine, by George B. Wood, M. D., &c., &c. 2 vols. 8vo.

The Treasurer made a report in relation to the finances of the College, when, it was *Resolved*, That he be directed to invest three hundred dollars of the funds in such of the loans of either of the Municipal Corporations as he may deem most advantageous for the interests of the College.

A conversation took place in reference to the continued and increased prevalence of typhus fever in the city and county of Philadelphia.

Cases of the disease had fallen under the notice of most of the Fellows present; with few exceptions, these had been confined to immigrants recently arrived from Ireland. In a few instances, the fever had manifested itself in individuals residing in the same houses, or in the immediate vicinity of immigrants recently from on board of ship, or who were the frequent visiters of the latter.

Dr. Griscom stated, that he had met with cases in which no inter-

course nor the slightest connection could be ascertained to have taken place between the patients and persons recently arrived from Europe. In these cases the disease presented precisely the same symptoms as in those occurring in immigrants. He offered no opinion as to the contagious character of the fever.

Dr. Condie considered the disease to be capable of propagation by infection. When a number of patients labouring under it are crowded together, particularly in filthy and badly ventilated apartments, a poison is unquestionably generated, capable of producing typhus fever in those who breathe the atmosphere loaded with it. Even at the Lazaretto, where every possible attention is paid to cleanliness and ventilation, several of the nurses and attendants upon the sick have been attacked.

Among the immigrants the disease has been almost exclusively confined to those from Ireland; in a few instances it has been communicated from these to persons residing in the city and its suburbs. Vessel after vessel has arrived from the continent of Europe with German immigrants, but, so far as the Doctor has been able to learn, in no instance has a case of typhus fever occurred among them; while, on the other hand, few of the vessels bringing Irish immigrants have arrived this season among whose passengers some cases have not occurred either during the voyage, or soon after they came to anchor at the Lazaretto.

In one instance the crew and passengers of a large packet ship from Liverpool were found upon the first visit of the Lazaretto Physician to be apparently in good health. No case of disease had occurred on board during the voyage, and the cleanliness and well found condition of the vessel gave hopes of her being released from quarantine at the termination of the twenty-four hours precautionary detention to which all immigrant vessels are subjected; but soon after her arrival the fever broke out among the steerage passengers. Thus evidencing the strong predisposition to disease among that portion of the Irish population which has furnished the majority of the immigrants to this country during the present year.

Dr. Jackson considered it to be a somewhat remarkable circumstance that typhus fever should prevail in this vicinity, to any extent during the present season of the year. He has witnessed several epidemics of the disease, but these were in every instance, confined to the winter season. He was of opinion that the immigrants who had been attacked with typhus fever subsequent to their arrival, must have contracted the disease on ship board, although its full development did not take place until some time after their debarkation.

Dr. Condie replied, that it was true that typhus fever was not a common disease during the warm season in Philadelphia, there being

few causes in operation then calculated to produce it among any portion of our community. In regard to the immigrants among whom it has prevailed during the present season, the greater portion of them were, no doubt, at the period of their arrival, strongly predisposed to disease of a typhoid character, from the operation of causes to which they had been subjected for a length of time previously to their embarkation, as well as during their stay on ship board. It is true, that in many of the cases it was difficult to account for the development of typhus fever, with the same decided characteristics as were presented in those which occurred on ship board, the individuals affected being surrounded by their friends, and placed upon their arrival in situations where they enjoyed the advantages of a comparatively pure air and a sufficiency of wholesome nutriment. The major portion of the immigrants, however, being crowded together upon landing, in small unventilated dwellings situated in the most confined and insalubrious parts of the city and its suburbs, without the least attention to personal and domestic cleanliness, and without a sufficient supply of wholesome food, it is not at all surprising that under such circumstances they should be attacked with typhus fever; the only matter of surprise is, that the disease has prevailed to so limited an extent, considering the number and condition of the immigrants who have been brought into our city during the few past months.

Dr. Gibbons inquired whether there were not good reasons for believing that a peculiar condition of the atmosphere, predisposing to asthenic forms of disease has prevailed during the past summer. He has seen many cases of very intractable diarrhœa, attended with great prostration, and the same insensibility to the action of stimulants as was observed during the epidemic cholera of 1832. In one instance, especially, which had fallen under his care, the utmost prostration speedily ensued, and although active stimulants were freely administered and retained, they appeared in no degree to arouse the patient from his state of prostration—death occurred at an early period of the attack.

Dr Coates inquired what was the condition of the glands of Peyer and Brunner in those who have died of the fever under consideration.

Dr. Condie replied that he had been presented with but few opportunities for post mortem examinations, and consequently could give no satisfactory answer to the question. · Among the cases that had fallen under his notice, while the majority presented the symptoms of distinctly marked typhus fever, others bore the characteristics of the typhoid fever of Louis, and in these latter, the glands of Peyer and Brunner were, no doubt, diseased. The phenomena

of the two classes of cases were strongly contrasted. In the first, the prostration of strength, a state of constant dozing, amounting in some to continued stupor, from which the patient could be aroused, it is true, by questions addressed to him in a loud tone of voice, but into which he again quickly fell after muttering an indistinct reply; in others, the stupor alternated, particularly towards the close of the day and during the night, with low muttering or mild delirium; the dull injected and suffused eye, the dusky flush of the cheeks, the dryness and acrid heat of the surface, the flaccid and retracted state of the abdomen, the petechiæ and purplish blotches covering the surface, the dark brown, parched and fissured tongue, and the peculiar odour exhaled from the body, were strikingly diagnostic; while in the latter, or typhoid cases, the less intensity of all the leading symptoms, the later period at which the stupor ensued, and the slower march of the disease generally, the abdominal tenderness, the tympanites detected upon percussion, and the gurgling sound upon pressure of the right iliac region with the hand, and at a later period the obvious tympanites, with distension of the abdomen, the light red coloured spots upon the abdomen, chest and limbs, the sudamina upon the neck and upper portion of the chest, marked a very decided distinction in the form of the disease.

Dr. Coates did not consider the disease of the glands of Peyer and Brunner as peculiar to the typhoid form of the disease, and which, he would remark, he was not prepared to admit as a specific affection. The parts referred to had, he believed, been found ulcerated or otherwise diseased in cases of typhus gravior as well as in typhus mitior by the English dissectors.

Stated Meeting, September 7th, 1847.

Dr. Bond, in the chair.

Present, twenty-two members.

Dr. Hays presented a number of foreign medical pamphlets and journals to the Library.

The following preamble and resolution were presented:—

Whereas, the custom of apothecaries prescribing for both medical and surgical diseases exists in this city to a very great extent; and whereas it is one liable to result in dangerous consequences to

the community, while it is injurious to the medical profession; and whereas, many instances have occurred in which life has been jeoparded, and several in which death has resulted from the practice; therefore—

Resolved, That in the opinion of this College the custom of prescribing by apothecaries in cases of disease and of accident is one that should be discountenanced by every member of the medical profession.

After some discussion, in the course of which, instances were related by several of the Fellows, where decided injury had ensued, and even some in which life had been sacrificed by the practice of apothecaries prescribing for patients calling at their stores—it was on motion—

Resolved, That the whole subject be referred to a committee to report what action it is proper and expedient for the College to take with the view to suppress the reprehensible custom referred to.

Drs. H. H. Smith, Wood and Condie were appointed the Committee.

Dr. Bell remarked, that all the members of the College were no doubt aware of the recent death of Dr. Andrew Combe, of Edinburgh. In noticing the fact at the present time, it was not with the view of pronouncing an eulogium upon the character and professional labours of the deceased. He merely wished to state to the College that the opinion formed by Dr. Combe during his life-time that his left lung was entirely gone, the chest having sunk in upon that side, was confirmed by an examination of his body after death. In a letter which he had received from a near relative of the deceased, it is stated that the left lung was wasted away and completely useless, while the right was nearly or altogether entire. Dr. Combe became attacked with symptoms of pulmonary consumption soon after he had attained the age of manhood; notwithstanding the steady progress of the disease and the consequent infirmity of his health, he continued to be the zealous student and successful writer, from the period of his first attack in 1820 to that of his death, in his fiftieth year. After having retired to rest on the evening of the 2d of August, in his usual state of health, the Doctor was seized with diarrhœa, to check which all the means employed were unsuccessful, and on the 9th of the month he expired. He had very little suffering, and his mind continued calm and cheerful to the last. Frequently, his relative states, he expressed his thankfulness that he was permitted to depart so easily. The immediate cause of his death, was found, upon a post mortem examination, to be a chronic affection of the bowels, terminating in ulceration.

We shall no doubt receive from his friend and professional

attendant, Dr. John Scott, a more detailed account of the structural changes detected after death.

Dr. Condie called the attention of the College to the extensive prevalence of dysentery during the present season, throughout the city and county of Philadelphia. The cases which had fallen under his care had presented nothing peculiar in their symptoms and progress; and though often of very long duration, the disease terminated fatally in but very few instances. Dr. C. has observed a much larger number of cases of dysentery in children within the last few weeks than he recollects to have met with during the whole course of his practice. Many children were attacked with the ordinary symptoms of cholera infantum, but in a few days, the evacuations assumed the dysenteric character, being composed of a minute portion of bloody mucus, often of pure blood, and attended with severe tormina and tenesmus. Fever was present in some cases, but not invariably; the abdomen was, in the majority of instances, sore to the touch; and occasionally tumid. When early placed under an appropriate treatment the disease readily gave way, but when neglected or mismanaged at first, it was generally very protracted and difficult to remove.

In three cases, all occurring in boys, between four and six years of age, and in which the dysentery succeeded to an attack of measles, a gangrene of the inner surface of the right cheek occurred. In one of these cases, the gangrene ran a very rapid course, and in about ten days, involved the whole of the right side of the face, destroying all the soft parts, from the median line, as far back as the mastoid process; death took place on the twelfth day after the first appearance of the gangrene. In the other two cases, the gangrene was arrested before it had extended beyond the mucous membrane of the cheek.

Stated Meeting, October 5th, 1847.

Dr. Hewson, President, in the chair.

Present, thirty-five members.

The following works were presented to the Library by Dr. Hays.

Finska Läkare-Sällskapets handlinger. Vol. I. 8vo.
Om Läkarebetyg öfver Dödande kroppskaden. Af Dr. A. T. Wistrand. 8vo.

Förteckning pä Skandinaviska Naturforskare-Sällskapets ledamoter vid Sammankomsten i Stockholm, 1842. 8vo.

Nieuw Archief voor Binnen en Buitenlandshe Geneeskunde in haren geheelen omvang. Vol. I. 8vo.

Arabisch-Scholastick Tijdvak. 8vo.

Offens Sendschreiben an Herrn Dr. M. Kalisch zu Berlin von Dr. Carl Pabs. Altenburg, 1844. 8vo.

De Gastritide, auc. V. Aloysius. 4to.

De Ictero et Cholelithis, auc. A. Pavesi. 4to.

Krampf und Kræmpfe, von Dr. C. J. Heidler. 12mo.

Schets der Algemeene Therapie, door G. P. F. Groshans, M. D. 1846. 8vo.

Zeitschrift für Therapie und Pharmakodynamick. Vol. I. 8vo.

Norme Austriache attorno ai pubblica impiegati di Sanita; Opera di Dr. G. F. Müller. 8vo.

Die Phrenologie in und ausserhalb Deutschland, von G. von Struve. 8vo.

The Treasurer reported that, in obedience to the resolution of the College, he had invested $300 of its funds in City six per cent. loan.

Dr. Hays, on behalf of the Committee on Ethics, reported as follows:—

The Committee to whom was referred the "Rules of Professional Conduct," enacted by the College, and also the following resolution presented at the meeting in June last, viz: "That so much of the Code of Medical Ethics adopted by the National Medical Association as is not already embraced in the 10th Chapter of the Ordinances and By-Laws of the College, be enacted by the College into a By-Law for the government of its Fellows:"—With instructions to report a code of Ethics for adoption by the College, respectfully report:

That they have compared the rules of professional conduct comprised in the Ordinances of the College with the code of medical ethics adopted by the National Medical Association, and they find that the latter embraces all the former, with a few exceptions, which will presently be pointed out, and besides, contains many excellent ethical precepts which should be adopted as rules for professional conduct by the Fellows of the College.

The rules of the College omitted in the code of the National Medical Association are the following:—No. 7, § 1 of Chap. X.; four last sentences of No. 8, § 2, Chap. X.; Nos. 11, 12 and 13 of same Sect. (2;) last sentence of No. 21, § 4, Chap. X.; Nos. 23, 24, and 25, except the first two sentences, and No. 26 of § 6, Chap. X.

All these, with the exception of Nos. 23 and 24, § 6, which relate to fees for professional services, and do not essentially belong to a

code of ethics, are, in the opinion of your committee, of little importance, and may, with perfect propriety, be rescinded.

A resolution, unanimously adopted by the National Medical Convention, which assembled in New York in May, 1846, declares it to be expedient that the medical profession in the United States should be governed by the same code of medical ethics. This declaration, which is sustained by many weighty considerations, can only be carried into effect by the cooperation of the local societies throughout the country, and their adoption of the code of the National Medical Association. By this course of action the standing of the profession will be elevated, the code of ethics will have far greater force, and its injunctions be much more generally respected.

With these views the committee recommend the adoption of the following resolutions:

1st. *Resolved*, That Chapter X, of the Ordinances and By-Laws of the College, except Nos. 23 and 24 of Sect. 6, be repealed.

2d. *Resolved*, That the code of ethics of the National Medical Association be enacted by the College, for the regulation of the professional conduct of the Fellows.

3d. *Resolved*, That the following explanatory note be appended to the first line of § 7, Art. V, of the code.

By the expression "patient of another practitioner" is understood to mean a patient who may have been under the charge of another practitioner at the time of the attack of sickness or departure from home of the latter, or who may have called upon him for assistance during his absence or sickness, or in any way given it to be understood that he regarded him as his regular medical attendant.

4th. *Resolved*, That the following words be added to § 1, Art. VI, "or when both parties are Fellows of the College, to the Censors."

5th. *Resolved*, That Nos. 23 and 24 of § 6, be referred to a committee for revision, and when revised and adopted by the College, that they be appended to the code of ethics.

On motion, it was *Resolved*, That the first four resolutions appended to the above report be laid upon the table for the present, and that the fifth resolution be adopted.

In accordance with the provisions of this last resolution, the following Committee was appointed: Drs. Condie, Norris, Parrish, Ashmead, Hallowell, and Hodge.

Dr. H. H. Smith, on behalf of the Committee on the subject of the practice pursued by apothecaries of prescribing for diseases and accidents reported as follows:—

The Committee having given the subject due consideration, are of opinion that it is in every way worthy of the attention of the College, and that much good may be anticipated from the action of

this body in reference to it. The evil is one that in this community has long existed; its origin being probably due to the belief of the public, that those dealing in drugs, must be fully acquainted with their application to the cure of diseases; it being taken for granted that discrimination of the latter is an easy matter. The fact, too, that throughout a large portion of our country, physicians are in the habit of retailing their own medicines, and consequently, when they prescribe for a malady, of furnishing the remedies they direct; together with the vulgar notion, that each individual understands best his own constitution, have tended, in no small degree, to render the custom so common that it is by many thought to be perfectly right. Your committee, however, believe, that several of the apothecaries of this city have long been opposed to a practice for which they felt themselves unfitted, and continue it, to a limited extent, only from the force of circumstances—the competition at present existing in the business, compelling them to advise the use of various remedies, when consulted, in order to prevent the transfer of their customers to others, not in any degree better qualified, and certainly less scrupulous.

Your committee, therefore, think that the action of the College in discountenancing the practice, will have a most beneficial effect; strengthening the opinions of those among the apothecaries who are now opposed to it, and deterring others from its continuance.

By limiting the duties of the apothecary to the compounding of medicines and the sale of articles called for by their customers, it is believed the public will be pretty well protected from a recurrence of such accidents as were reported to the College at its last meeting. The means of thus limiting the duties of the apothecaries would seem, it is true, not very easy to command, but as the compounding of physicians prescriptions is admitted by all in the business to be an object worth attending to, and as they gain nothing by prescribing themselves, the considerations of self-interest will probably effect, to a certain extent at least, the desired end, even should higher motives be disregarded. If the College, therefore, were made acquainted with the views of apothecaries in regard to this matter, there would certainly be but little difficulty in inducing, by our cooperation, a large portion of them to adopt the views of the profession generally in relation to it.

Your committee, therefore, recommend that the following circular be addressed to each apothecary in the city proper and southern districts:

CIRCULAR.

Sir:—Several instances of serious injury to life, resulting from the practice of prescribing for diseases, as pursued by many apothecaries, having been reported to the College of Physicians—the

committee of that body to whom the subject has been referred, are desirous of learning your views and custom in regard thereto.

Believing that the duties of prescribing and compounding medicines in this city should be rendered as distinct as possible, the College wish to take such measures as will tend to separate the two, and trust that the movement will be cordially seconded by every conscientious apothecary.

The committee will thank you to address an answer to the chairman, or one of the other members of the committee, on or before ———, stating particularly your practice in this matter.

In the event of no reply being received, the committee propose to consider you as approving of the custom, and to report to the College accordingly.

As there is a medical association in the northern part of the city, who have already taken some action on this subject, your committee recommend that, that portion of the town be left to them, the Secretary of the College notifying the association of the action of the College.

As connected with the present subject, the committee would call the attention of the College, to the fact of certain physicians holding an interest in apothecary shops, or if not actually principals or partners, receiving a percentage on every prescription sent to the store.

Your committee believe that justice to the apothecaries requires that the well known sentiments of the profession in regard to such a connexion, and the evils likely to result from its continuance, should be widely promulgated. They beg leave, therefore, to offer the following resolutions :—

1st. *Resolved*, That in the opinion of the College, the duties of prescribing and compounding medicines in this city should be kept perfectly distinct, and that any connexion or moneyed interest in apothecary stores, on the part of physicians, is unprofessional, and therefore, to be reprobated.

2d. *Resolved*, That the College of Physicians will hereafter deem those apothecaries who continue to prescribe for diseases as unworthy of the support of its Fellows.

3d. *Resolved*, That the Fellows of this College be recommended to exert themselves individually and collectively to abolish the practice.

On motion, it was *Resolved*, That the recommendation of the committee in regard to the Circular be adopted; the form of the said Circular being first amended by striking out all after the word *stating* in the third paragraph, and inserting the following: "Your views on this question, and whether you are willing to cooperate with the College in the object proposed."

The consideration of the resolutions appended to the report of the

committee, were, on motion, postponed until the next meeting of the College.

A proposition was presented, signed by five Fellows, to adopt as an ordinance of the College, the first four resolutions appended to the Report of the Committee on Ethics. Which, in conformity with the 8th Section of the Charter of the College, was laid upon the table until the meeting in November.

Dr. STILLE presented his resignation as a member of the Committee on Quackery, which was accepted, and on motion, the President of the College was requested to fill up and remodel the said committee by the next meeting of the College.

Stated Meeting, November 2d, 1847.

Dr. WOOD, Vice President, in the chair.

Present, twenty-eight members.

Dr. HAYS presented to the Library a copy of the British Medical Almanac.

On motion, *Resolved,* That a committee of three be appointed to consider and report upon the expediency, and if in their judgment expedient, to present a mode of urging upon the Legislature of Pennsylvania to provide by law for the registration of births, marriages, and deaths, in accordance with the memorial addressed to the several State governments of the Union by the late National Medical Convention.

Committee: Drs. Stille, Emerson and Bond.

The College proceeded to the consideration of the amendment to the Ordinances and By-Laws proposed at the last meeting, when, upon motion, the said amendment was adopted.

Dr. PARRISH presented and read the Annual Report on Surgery, as follows:—

Our last annual report consisted in a brief communication, announcing the discovery of an agent said to possess the power of producing insensibility to pain, and of its application to practice in the Massachusetts General Hospital. The gentlemen who first introduced this new method, and each of whom claims to be the discoverer of its extraordinary powers, are citizens of Boston, the

one an eminent chemist and possessed of high scientific attainments in other departments of knowledge, and the other a distinguished dentist.

Since that period, Dr. Horace Wells, a physician of Connecticut, has asserted that he made the same discovery some years ago, without however reducing it to extensive practice, or making it publicly known, and the Legislature of that State have sustained his claim to the discovery by an official sanction. The consequence of these conflicting statements has been a long and unprofitable controversy into which it is not the design of your committee to enter, preferring to leave the decision of rival claimants to the calm and impartial judgment of disinterested parties.

It will be remembered that at the first introduction of etherial inhalation, the nature of the agent was concealed; it was then called the "compound letheon," and a patent was procured for the purpose of restricting its use mainly to those only who should pay for the right. It was not long however, before the article was found to be pure sulphuric ether; and when once generally known, it was used without reserve by any person who might choose to test its powers; thus proving the inefficiency of the patent laws when applied to those discoveries which have reference to the action of medicines upon the economy, and which may be eminently calculated to alleviate human suffering.

As well might the illustrious Jenner have taken out a patent for the purpose of restricting the right to vaccinate, to those who should purchase it of him, as that the discoverers of the powers of ether or opium in allaying pain should attempt to confine the use of these agents to the privileged few who should obtain the right through their agency. It was therefore not remarkable that the medical profession generally should protest against the mode in which this new agent was introduced; and it must be gratifying to every friend of science and humanity to know, that one of the patentees, who was more especially identified with them, and whose name is honourably associated with the progress of science, and most intimately connected with this discovery, Dr. Charles T. Jackson, speedily relinquished his participation in a proceeding into which he had incautiously entered, and now fully accords with the general sentiment of the medical community on this question.

With these remarks we shall dismiss this branch of the subject, and proceed to the more important question of the actual merits of the discovery of the peculiar properties of sulphuric ether, and to the influence which this is likely to have upon the progress of surgery. In the discussion of this question we shall endeavour as far as possible to adhere to facts, and to present as connected a history of the progress of this new method of allaying pain, with the results which have been attained in different countries where it has been introduced, as our means of information will furnish. Our object

will be to give both sides of the picture, and to analyze and compare the facts as impartially as our fallible judgment will permit. If, in this attempt, we should seem to give an undue colouring to the favourable side of the question, it must be attributed rather to the nature of the subject, than to a desire to mislead others, or to convey any other impression than a strict induction from the facts of the case will warrant.

It must be confessed that the simple statement of the proposition, that an agent exists which may be safely employed without risk to life, or injury to the health, having the power in a few moments of obliterating the sense of pain, involves considerations of the highest interests to humanity. If it be true that there is an antidote to pain within the reach of all, who can estimate the value of the boon thus conferred upon our race? Who is there that does not shrink with an instinctive dread from the approach of pain? Where is the man so fearless or powerful that he does not quail and quiver under the agony of severe physical sufferings? Even those most renowned for goodness and virtue, who can look upon death with that calmness and fortitude, which a truly Christian life can best inspire, cannot bear up under the tortures of pain. The agonies of suffering are alike to all.

How much of human effort has been put forth to mitigate pain—to accomplish this is indeed often the chief end of the physician, and he has at his command an extensive class of medicines to effect this object. When these fail, as they sometimes do, and disease and suffering proceed on unchecked, how forlorn and despairing becomes the situation of the patient? It is then that the strongest of all human desires, the love of life is destroyed, and death is welcomed as a kind friend, rather than as a gloomy messenger.

In the practice of surgery, it is pain which inspires that dread of the knife, so generally felt by all classes of persons, and which so often constitutes an objection on the part of patients to the performance of necessary operations until it is too late to accomplish any good result.

Nor is pain without its evils as a disturber of the processes of nature, and when excessive, it may even of itself destroy life, by inflicting a fatal shock upon the nervous system. How far the physical and mental suffering attendant upon large surgical operations, may influence their results, it would perhaps be difficult to determine; that they are oftentimes prejudicial, and that it would be desirable to avoid or moderate them, we think few will deny.

When, therefore, the paper of Dr. Bigelow appeared in the Boston Medical and Surgical Journal, giving, in a clear and concise manner, the details of several important operations which had been performed at the Massachusetts General Hospital, under the influence of a gas which completely destroyed the sense of pain without apparent injury to the individuals, and without subsequent mischief,

it is no wonder that a profound interest was excited wherever the fact was made known. The authority from which the statement emanated, sustained as it was by the testimony of Drs. Warren, Hayward, and Parkman, his immediate colleagues, and by other reliable witnesses, was calculated to inspire a strong confidence in the value of the discovery. The incredulous, who had been so often deceived by false pretences to great medical discoveries, as to be suspicious of novelties, looked amazed and puzzled; the hopeful and sanguine were fired by a sudden enthusiasm, and an eager desire to test the claims of this new revelation, while the cautious and prudent determined patiently to wait for further developments. It was impossible, however, for any class to disregard statements received from such a source, or to look coldly on, careless of the event, and hence, it may be safely affirmed, that no medical publication of modern times has excited as deep and wide-spread an interest as did this paper of Dr. Bigelow.

Etherial inhalation became from this time the subject of extensive trials, more especially amongst our enterprising friends of the East, and cases attesting its extraordinary powers, rapidly multiplied. At the Massachusetts General Hospital a wide field was opened for its employment, and the Surgeons of that institution took every occasion to test its efficacy. After repeated trials, made under a variety of circumstances, they pronounced in its favour, and we are informed that up to this time they retain the most entire confidence in its safety and utility.

The warm approval of the leading Surgeons of Boston being thus secured, the fame of etherization rapidly spread throughout New England, and the discovery was hailed in that region with enthusiastic admiration, both on account of its intrinsic importance and of the source from which it emanated. Local pride may have participated somewhat in the feelings which animated its early advocates, and a knowledge of this may, on the other hand, have induced a feeling of distrust in the cautious and timid at a distance, least the reports of its extraordinary properties were exaggerated. Be this as it may, there does not seem to have been the same amount of interest in the discovery throughout the United States as might have been anticipated from its vast importance.

The medical journals of the Union, although they have generally published the statements issuing from Boston, have contained, until very recently, but few original communications on the subject. The profession appear to have been incredulous, or fearful of an agent for which such remarkable properties were claimed.

As it relates to the practice of the large hospitals of the country, (with the exception stated) we have seen no official statements of the ether having been employed, and we are inclined to believe that its use has been limited. We have understood however that it has recently been employed, with satisfactory results, at the New

York hospital, and we believe that there are not a few of the surgeons of that city, who are its advocates. At the Pennsylvania Hospital in this city, it has not been tried at all, being considered by the judicious surgeons of that institution as a remedy of doubtful safety, or at least, as not sufficiently established to warrant them in its employment.

In the city of Baltimore, as we were recently informed by an intelligent surgeon residing there, etherial inhalation was attempted in several instances during the present autumn, but without that marked benefit which would induce the experimenters to continue it—in one instance a degree of excitement was induced by it, on the eve of an amputation, which rendered it necessary to postpone the operation—and which discouraged, for the time at least, further trials.

In regard to the practice of Philadelphia, we know of no surgical operations performed under the influence of ether, prior to the fifth month, (May) of the present year. In the early part of this month, Dr. Gibson performed an amputation of the finger of a medical student who was etherized, and the result was perfectly satisfactory. In the same month, Dr. Horner extirpated a cancerous breast under the use of ether, but the patient was so excited as to embarrass the operation, and the trial was considered a failure. In the summer, Dr. Pancoast used ether in an operation for hemorrhoids, with the happiest effect. Subsequently to this, Dr. J. K. Mitchell, who had visited Boston, mainly with a view of informing himself upon the subject, employed it successfully in several important cases; and within the past month, several large operations involving risk to life have been performed by Dr. Mutter upon etherized patients, at the clinic of the Jefferson Medical College. Two of these, one a case of extirpation of a schirrous testicle, and the other of a fungus tumor of the eye-ball, requiring the excision of the organ, were witnessed by your committee, and the results, so far as the safety and efficiency of the ether were concerned, were entirely satisfactory; since then your reporter has excised a small tumor from the forehead of a lady under the influence of ether; the patient being entirely conscious of the operation, and yet suffering no pain. All these patients recovered, without an unpleasant symptom, in the usual period.

Still more recently, several important operations upon etherized patients have been performed at the clinic of the University of Pennsylvania, and the results, as we are informed, have been entirely satisfactory in preventing pain, though one patient who was subjected to an amputation of the leg, was apparently labouring under great uneasiness during the operation, notwithstanding he stated afterwards that he had not suffered In another case of fissure of the anus; a most painful operation, the patient was not aware that the operation had been performed until convinced of the fact by the

bystanders. A case of extirpation of the eye-ball was equally successful.

Reports of operations under the influence of ether are rapidly accumulating in the American medical journals, though they are still by no means numerous; so far as we have been able to collect the results, they have generally been highly favourable, and no instance of a fatal event or even of serious mischief in any way attributable to the ether, has come to our knowledge.

There is however another branch of the surgical art, in which ether has been employed very extensively both in this country and abroad, viz. in the practice of dentistry.

It will be remembered that the first trial of etherization was made by Dr. Morton, a dentist of Boston, in the extraction of a tooth. From that time it has been an established remedy in the hands of large numbers of intelligent persons of this profession. Dr. Morton himself has used it in thousands of cases, and is still actively engaged in its employment. In this city many of our most respectable dentists have employed it habitually for some months past, and several have had it in daily use for nearly a year. Their patients are placed under the influence of ether prior to the extraction of teeth, with as little hesitation as though they were about to swallow some inert medicine; the extraction is effected without pain, and oftentimes without their being aware of it, and in a few minutes they go on their way as though nothing important had occurred. In a few instances unpleasant effects follow, which may continue for some hours, but no death or any serious result is known to your committee to have occurred in the practice of any one of the numerous dentists who employ this agent. This fact must be considered as remarkable, when it is remembered how indiscriminately ether has been employed by this class of operators, and how many thousands of persons they must have subjected to its influence.

From our transatlantic brethren the testimony as to the effects of ether inhalation in surgical practice, is much more full and satisfactory. The first announcement of the discovery in England was through a letter from Dr. Bigelow to Dr. Booth of London. Within a week after the receipt of this communication, the effect of the ether was put to the test at the Hospital of the London University College by that eminent operative surgeon, Robert Liston. The success was complete, and roused the enthusiasm of the operator to a high pitch. In a letter to his friend, Professor Miller, of Edinburg, written on the 21st of the 12th month, (December) 1846, he remarks:

"Yesterday I amputated a thigh, and removed by evulsion *both* sides of the great toe nail, without the patient being aware of what was doing, so far as regards pain. The amputation man heard, he says, what we said, and was conscious, but felt neither the pain of the incisions, nor that of tying the vessels. In short, he had no

sensation of pain in the operating theatre. I mean to use it to-day, in a case of stone; in six months no operation will be performed without this previous preparation."

The effect of this announcement, coming from such authority, may readily be imagined; as soon as the necessary apparatus was procured, the surgeons of Edinburg were not tardy in pursuing the subject, and accounts of painless operations were soon put forth, from such men as Professor Syme, Dr. Duncan, and Professor Simpson. The approbation of some of the most eminent surgeons in London and Edinburg to etherization, being thus secured, confidence in its powers was rapidly diffused throughout the kingdom, and numerous operations both in hospital and private practice, were performed under its influence. During the first six months of the present year, Dr. Ranking states in his half-yearly abstract, that he had notes of upwards of one hundred cases in which the inhalation had been followed by the most perfect success, and the majority of which were represented as progressing favourably at the time of their report. Of the ultimate result of many of the cases, says Dr. R., no mention has been subsequently made, and we are therefore bound to conclude either that they terminated successfully, or at all events, that death when it did occur, was at a period so distant from the time of the operation, as to preclude the idea of its connexion with the administration of ether.

Dr. Ranking also quotes a table of M. Burguieres, a French writer, of 211 operations performed in the French Hospitals, in which ether had been administered, and according to this author, the comparative mortality of the different classes of operations with and without ether, show a gain in favour of those where ether has been used.

The news of the successful use of ether in England soon spread across the channel and was joyfully hailed by the enthusiastic votaries of science in France. To Jobert and Malgaigne, of the St. Louis Hospital in Paris, belong the credit of its first introduction into France. A very interesting sketch of the progress of the discovery in Paris, is given in a letter of Dr. Yandell, the intelligent correspondent of the Western Journal of Medicine and Surgery, and published at Louisville, in the number for June, 1847, from which we shall take the liberty of quoting some interesting facts: Malgaigne communicated the history of five cases in which he had used the ether, to the Academy of Medicine, at its session on the 12th of January. In a few days after this, Professor Roux used it with partial success in a case of amputation of the leg; and on the 22d of January, Velpeau removed a large tumor from the posterior part of the thigh, the patient declaring, after the operation, that he not only did not suffer pain, but had felt exceedingly comfortable during the operation.

Larrey, one of Velpeau's assistants at this operation, observing, that the muscles of the patient were relaxed while under the influ-

ence of the ether, suggested that it might be rendered available in the reduction of dislocations, and in a short time afterward an opportunity occurred in the hospital of submitting this suggestion to trial. A powerful man who had a dislocation of the shoulder, which had previously resisted all attempts at reduction, was placed under the influence of ether and the reduction effected without difficulty. The same result has followed the inhalation of ether in several cases of dislocation reported by American Surgeons.

Quersant, Surgeon to the Children's Hospital in Paris, introduced it into that institution, and two cases are reported by Dr. Yandell, in which he witnessed operations on children of twelve years of age without pain. Many other operations performed in the public hospitals of Paris by distinguished surgeons, are recorded by this observer, in none of which did any injurious consequences follow, although in a few instances the ether failed to produce its characteristic effects, and in two instances the sensibility to pain appeared to be exalted.

A list of all the operations performed at the different hospitals of Paris, under the influence of etherial inhalation, up to the 1st of the third month, (March) of the present year, has been carefully collected and arranged by Dr. Yandell, from which we gather the following:

At the Hotel Dieu, by Professors Roux, Blandin, and Boyer, 56 cases.

At La Charité Hospital, by Velpeau and Gerdy, 27 cases.

At St. Louis Hospital, by Jobert and Malgaigne, 55 cases.

Beaujon Hospital, by Laugier, Robert, and Bouvier, 12 cases.

At Hospital de la Pitié, 12 cases, by Giraldes.

At the Children's Hospital, by Quersant, 10 cases.

At Cochin Hospital, by Michon, 2 cases.

Hospital du Bon Secours, by Denonvilliers, 20 cases.

Maison Royale de Santé, by Monod, 3 cases.

Hospital des Cliniques, by Villemier, 10 cases.

Du Midi Hospital, by Vidal, 3; making a grand *total of* 211 *cases.*

Of these, there were of amputations of the thigh, 10; of the leg, 8; amputation of the arm, 4; of the forearm, 1; partial amputation of the hand, 1; amputation of fingers and toes, 19; total or partial amputation of the breast, 8; extirpation of important tumors in different regions, 12; removal of the eye, 1; sarcocele, 1; strangulated hernia, 1; stone, 1; lithontripsy, 1; hydrocele, 2; varicocele, 2; phymosis, 4; fistula, a fissure of the anus, 8; reduction of luxations or fractures, 5; reduction of hernia, 1; removal of nails, 4; extirpation of tonsils, 1; strabismus, 2; polypi, 3; cataract, 1; lachrymal fistula, 1; section of tendo achilles, 2; cauterization with red hot iron, 12; application of moxas, 2; opening abscesses, incisions and excisions of various sorts, 91.

Of these 211 cases, 17 terminated fatally; in the 10 amputations

of the thigh 4 died, that is 2 in 5: of the leg, 3 died; of the arm, 2; of the forearm, 1; of the toe, 1; of the finger, 1; of the breast, 2; extirpation of tumors, 3.

This mortality may appear large, but when compared with the results in the same hospitals without ether, the deaths will be found to be less numerous. Thus, according to the statistical tables of Malgaigne, 3 in 5 cases of amputation of the thigh died in the Paris Hospitals, while the general rate of mortality, (so far as these statistics inform us) in amputations of members from disarticulation of the thigh to amputation of the phalanges is about 2 in 5. Taking the whole number of amputations of the thigh, arm, and forearm, performed under the influence of ether, they amount to 23; 10 of whom died, making about 2 to 5; while the statistics of Malgaigne give 512 amputations of the same kind in five years, and 281 deaths, or nearly 3 in 5.

Of course it is not pretended that these statistics are sufficiently full and clear to establish the claims of etherial inhalation as a means of averting fatal results to the extent which would here appear; but we have deemed it proper to quote the facts as far as they have been collected by a careful and intelligent observer, and leave the verification of the inferences to be drawn from them to future investigation.

In Germany, the practice of etherization is at this time in full progress. It is freely used in all the large hospitals of the German States, and its effects are highly lauded by some of the first surgeons of that country.

One of the most elaborate memoirs upon the subject, covering 228 pages, and entitled "Ether against pain," has been recently issued from Berlin, by John Frederick Dieffenbach, the celebrated German operator, a man more distinguished for his mechanical skill, and for the number and extent of his operations, than for his scientific attainments and judgment. Dieffenbach is however considered the largest operator in Europe, and of course his opportunities of testing the effects of etherization are very ample. Although he does not consider it as possessing any advantages for the surgeon, he still uses it for the benefit of his patients, and considers the discovery as a most important event in the history of surgery.

We have been favoured by Dr. Keller, an intelligent German physician, now residing in Philadelphia, with a brief synopsis of the contents of Dieffenbach's work, from which we gather the following facts, viz:

Eighty-five operations under the influence of ether are reported, all of which are stated to have been successful; eight of these were in children of from three to twelve months old; seven were for cancerous tumors of the breast; eight or ten for malignant tumors situated in different parts of the body; several were for enlarged tonsils and polypi of the nose; four were rhinoplastic opera-

tions, and one an extensive dissection of the cicatrix of a burn in the neck; all requiring considerable time, and under ordinary circumstances very painful, and said to have been performed without pain under the use of ether.

Eight cases were operations for strangulated hernia, and two amputations of large members, besides a number of operations of less importance, as the section of muscles and tendons, application of moxa, &c.

In Vienna, the use of ether was commenced at the great hospital of that city, one of the largest in the world, and containing during the past winter upwards of 3000 patients; in the early part of the fifth month (May,) of the success of the early trials we have been informed through Anton Heger, a medical student who resides in Vienna, and is now in attendance upon the medical lectures in this city.

This gentleman has resided in the Military Hospital, as an assistant, for several years past. He states that several of the first operations performed under the influence of ether in Vienna, terminated fatally, in a period varying from 8 to 10 days; they were all amputations of large members, and the operator was Dr. Schuh, a highly esteemed surgeon connected with the principal hospital. These cases created fears in the mind of Dr. Schuh, least the ether might have been the cause of death; he published the result, and abandoned the use of the article. His colleagues, however, did not coincide in this opinion, and continued to use ether in the large operations performed by them. Their patients did as well as usual, and they became strong advocates for the practice. When our informant left Vienna, less than three months since, etherization was in daily use at the hospitals, and several hundred patients had been subjected to it, even Dr. Schuh had resumed its use, so strong was the evidence in favour of its safety.

We have now traced the history of etherization, as applied to surgery, from its first introduction into this country to its announcement and rapid spread in Great Britain, France, and Germany, and have shown that it has been received with enthusiasm, and adopted as the great American discovery in all the large cities in these countries. This history, as it relates to foreign countries, covers a period of some six or seven months, and is mainly derived from the medical journals. But it sometimes happens that as the charm of novelty wears off, new remedies lose the attractions which first attended them, or inconveniencies and dangers not perceived originally, are discovered; this however does not appear to have been the case with the ether. We are informed by our fellow-citizen, the eminent professor of surgery in the University of Pennsylvania, who has just returned from a foreign tour, undertaken mainly with the object of informing himself upon matters relating to his peculiar department; that etherization is still attracting very general attention

throughout Great Britain and on the continent. In his travels in England, France, and Germany, he had many opportunities of witnessing the effects of ether in the practice of the most eminent European surgeons in those parts, and of conversing freely with those best informed in regard to its merits. He reports that the testimony in favour of its efficiency and safety as a means of destroying pain was almost unanimous. In all the large hospitals it is constantly employed, and Dr. Gibson searched in vain for a single case in which death was directly attributable to its use. It is at this time viewed as an established remedy in London, Edinburg, Paris, Berlin, and other cities of less note, and the name of Dr. Charles T. Jackson, to whom the merit of the discovery is generally awarded abroad, is held in the highest esteem.

There is moreover another class of facts to which we must refer in summing up the results of experience on this vitally important question. We allude to the evidence which has accumulated in regard to the use of ether in the practice of obstetrics. Although this branch of inquiry does not come strictly within the province of a surgical report, it is still so intimately connected with the chain of events which we are recording, as to render it necessary to consider it here.

On the announcement of the discovery of the powers of ether in Edinburg, Dr. Simpson, an eminent teacher and practitioner of obstetrics in that city, determined to test its applicability to the practice of his peculiar department.

The first case in which he employed it was on the 19th of the First month, (January) of the present year. The case was one of deformed pelvis, in which a child at full term was extracted by turning; the woman was placed under the influence of ether for twenty minutes before this difficult and dangerous operation was commenced, and it was completed without her knowledge. "She quickly gained full consciousness, and talked with gratitude and wonderment of her delivery, and her insensibility to the pains of it." Her recovery was rapid and unusually favourable.

Three other cases of difficult labour are reported by Professor Simpson, occurring within a few weeks of the first case, in which delivery was accomplished by the forceps, without consciousness on the part of the patients, and with the same happy termination. In all of these the uterine contractions were uninfluenced by etherization and occurred with the usual intensity and frequency.

The result of these cases in the practice of operative midwifery, naturally suggested the idea of employing the same agent in natural labours, and Professor Simpson, and many other obstetricians have since put this practice to the test in a large number of cases, and with the most gratifying results.

On the 23d of the following month, Paul Dubois, a celebrated accoucheur of Paris, read a paper before the French Academy of

Medicine, in which he detailed the history of two cases of difficult labour, in which he had etherized the patients, and delivered by the forceps without the least consciousness on the part of the mother; and also several cases of natural labour, in which the pains had been entirely obliterated, while the uterine and abdominal contractions continued in full force, by the same means.

In the fifth month, (May) Professor Seibold, read a paper before the Royal Scientific Association of Gottingen, on the same subject, in which he urges strongly the applicability of etherization to difficult and complicated labours, while he considers its general employment in parturition as still a doubtful question.

In our own country, Dr. Walter Channing, a highly judicious physician of Boston, was, we believe, the first to employ etherial inhalation in obstetric practice. His experience, as detailed in the Boston Medical and Surgical Journal, for June 10th, 1847, corresponds precisely with the reports received from abroad.

More recently, a series of six highly interesting cases of natural labour, (one of which was complicated with puerperal convulsions) in which ether was employed, have been reported by Dr. Jonathan Clark, of Merion, near Philadelphia, in the October number of the Medical Examiner. In all of these the effects of the article are stated to have been entirely satisfactory, and the subsequent recovery of the patients rapid and complete.

Up to this period etherization in the practice of obstetrics has been steadily gaining ground, and as yet, we have no instance reported of injurious effects following its use; the cases are however not yet sufficiently numerous to inspire general confidence in its safety during the critical period of parturition.

In the practice of medicine, or as a therapeutic agent, in the treatment of disease, the process of etherization has some warm advocates, though its powers have as yet been developed to a very limited extent. It has been used in a few cases of tetanus with variable results; in some its effect is stated to have been salutary and to have contributed to the cure of this intractable malady, while in the larger number it was thought to aggravate the spasms, and to hasten the fatal issue. A case of the latter description has been reported by Professor Roux, of Paris.

In facial neuralgia, spasmodic asthma, colica pictonum, and ordinary intestinal spasms, it is said to have been used with advantage.

In a case of violent spasm of the neck of the bladder which occurred in this city within a few weeks, etherization was resorted to with the most happy effects. The patient was an eminent member of our own profession, and a Fellow of this College, a cautious observer, and one whose extensive scientific attainments have made him known far beyond the circle of his immediate friends.

As the testimony of such an individual, founded upon his own sensations, is important to our present inquiry, we shall briefly state

the leading facts of his case, as derived from himself. He was attacked with violent pain in the posterior region of the scalp which was succeeded by excessive and urgent irritation of the urinary passages. This increased to such an extent, that the bladder became intolerant of even the smallest portions of urine, and an almost constant desire to urinate was the consequence. Each effort was attended by agonizing pain, with spasm of the bladder, and constriction of the external organs. Leeching to the perineum, powerful anodynes, both by the stomach and rectum, warm bathing, mucilaginous drinks, &c. were resorted to, under the direction of the best medical counsel, but with very slight mitigation of the symptoms. Our friend now bethought himself of ether, and in the agonies of his condition, determined to use it without stint, he accordingly procured a simple apparatus from a neighbouring dentist, and commenced the inhalation. He describes the effect as most soothing and delightful; the pain ceased, and he soon fell into a delightful slumber, (the first for several days) which continued for two hours; but the spasms returned and he was obliged to resort to the ether, occasionally, for four days and nights, during which time he would frequently feel his bladder contracting without suffering pain; at the end of this period, the disease passed off, and he immediately laid aside the ether, not however without the most grateful recollections of its effects, and with a determination to adopt it in his own case, and for the benefit of his patients when fit occasions should arise. This gentleman used during his attack from seven to eight ounces of ether, and experienced no particular excitement or delirium under its influence; all the functions went on naturally, and he recovered without unusual symptoms.

We have now passed in review, some of the prominent facts which have been accumulating within the past year, attesting the efficacy and safety of this new process of destroying pain, and it may well be asked, if in the midst of all this favourable testimony, there are no counter reports? And why is it that some of the first surgeons at home and abroad, still hesitate to employ an agent of such matchless power in mitigating human suffering?

In presenting the preceding account, your reporter has not been unmindful of the well established truth, that great caution is necessary in receiving all statements made on medical authority as facts; so many subtle influences are at work in the human economy which may control or modify the phenomena both of health and disease, that even honest and well balanced minds may be deceived. The history of medicine is full of such deceptions; and so often have extravagant pretensions to new medical doctrines, and presumed discoveries of novel methods of treating diseases, been brought forward and advocated by the hopeful and ardent of our profession, only to flourish for a brief period and then sink into oblivion, that too much caution cannot be exercised in forming a judgment

upon these questions. But, on the other hand, there is danger of nurturing an overweening conservatism and incredulity, and shutting our eyes to the true light which occasionally breaks in upon some dark abyss to reveal a great truth, and thus to add additional lustre to the brightness of science.

The fact that much which is put forth as new and important, is really valueless and deceptive, does not therefore diminish the obligations of every searcher after truth, to look impartially into all medical questions which are presented to him by respectable authorities in our profession, and especially into those which involve the highest interests of humanity. He is bound to investigate these in the spirit of free and honest inquiry.

In taking a view, then, of the opposite side of this question, your reporter has been anxiously desirous of collecting *all the facts and cases* which have been recorded as adverse to the claims of etherial inhalation upon the confidence of the profession; he has examined carefully the various medical publications which have treated upon the subject, without having formed at the commencement of the inquiry any settled opinion of his own, and with the expectation of finding many unfavourable reports in the numerous papers on etherization, which have appeared in the medical journals of the past year. The result of this examination is now presented to the College; that it is complete and thorough is not pretended, but it is as much so as our means of information would enable us to make it.

In an able article on etherization in the British and Foreign Medical Review for April, the editor has collected all the deaths which had been more or less publicly attributed to ether, occurring in England up to the period at which he wrote. We shall first give a brief abstract of these cases, and then examine those which have since transpired, and are derived from other sources. They are four in number.

The first was a case of lithotomy. The operation was performed by Dr. Nunn, of Colchester; the patient recovered from the effects of the ether in the usual time, but did not react for a period of twenty-four hours, at which time he had a chill followed by collapse, and died. On examination after death, no lesions were found to account for this sudden termination, but the blood was said to be more fluid than natural, and the heart flaccid.

In the second case, a large tumor was removed from the back of the thigh, but insensibility was not produced by the ether, as the patient struggled at every incision, and declared that she felt pain. The operation lasted over an hour according to one witness, and according to the operator 25 minutes, and the wound was six inches long. The patient lived 28 hours, during which time she was conscious; took drink and nourishment, but was very prostrate and never reacted.

The third case was that of an old gentleman upwards of 70, whose limb was amputated by an eminent London surgeon, while under the partial influence of ether. The patient gave signs of pain, and said afterwards that he felt it, though there was evidently less suffering than usual. The immediate effects of the ether went off, the patient took wine and nourishment, and lived four days, though he never reacted fully.

The fourth case was that of a boy, who was operated upon for lithotomy in one of the London hospitals. In this case, also, the primary effects of the ether passed off, the patient lived many days, and died apparently from the effects of inflammation at and around the wound. In one of these fatal cases, a coroner's jury decided that death occurred from the effects of the ether, and of course, the publication of this fact became very general, and caused no little apprehension in the public mind.

In France, according to the investigations of Dr. Yandell, who was on the spot, and whose report extends to the 1st of the fourth month (April) of the present year, there was but one solitary case, amongst the great number, operated on at the Paris hospitals up to this period, in which the ether inhalation was believed to have any agency in producing a fatal result. This was a patient operated on by Jobert at the hospital of St. Louis, who subsequently died of bronchitis, which this surgeon supposed to have been induced by the inhalation. The details of the case are not given in the report of Dr. Yandell.

Subsequently to this date, several patients are reported to have died within four or five days after severe operations, in which ether had been used, and without the cause of death being clearly apparent. We find in the Boston Medical and Surgical Journal, of June 14th, in a letter of Dr. Henry Bryant from Paris to the editor, two cases of this description which occurred under the care of Velpeau, at La Charité Hospital. One was for the extirpation of an encephaloid tumor of about the size of the fist, from the left breast of a woman aged 45 years, who appeared at the time to be in good health. The operation was performed on the 3d of May, and the patient inhaled the ether for 18 minutes before she became insensible; the operation lasted four minutes, and the patient lost but little blood. On recovering she stated that she experienced no pain, and continued comfortable during the night and following day; the pulse calm, and the general appearance satisfactory; her only complaint was from a pain in the back; and there was a little crepitous rale over the lower part of the lungs; intelligence perfect. She died on the fourth night after the operation, without acute symptoms. On examination after death, the brain presented nothing but a little injection of the medullary matter; abdomen normal, the lungs presented posteriorly a little hypostatic congestion; the bronchi were remarkably flaccid and slightly red.

The second case was a cancer of the testicle, in a state of ulceration, in a man presenting the cancerous diathesis. The ether was inhaled six minutes; the operation lasted eight minutes, and he continued to inhale it during this time; very little blood was lost during the operation, and the wound was filled with lint. The patient had no knowledge of the operation, and on recovering was only convinced of the fact by seeing the tumor. On the next day he had passed a comfortable night, had no fever, and his general appearance good; on the following day he had a little fever, diarrhœa and nausea, with pain in the lower part of the abdomen; these symptoms increased in violence, with acute pain in the iliac fossa; and on the fourth day after the operation he died.

"On examination of the body a portion of the epiploon was found glued to the opening of the internal ring and suppurating; a small quantity of pus was found inside of the peritoneum surrounding the inflamed portion of omentum, and an effusion of a small portion of blood in the cavity of the peritoneum."

These notes of post mortem appearances, Dr. Bryant states, are given from recollection, as he made no record at the time. In remarking on them, Velpeau considered the fatal result in the first operation to be more than probably caused by the ether; while in the second he did not believe it had any connexion with it. These cases occurred early in the fifth month (May.)

Since that period, your committee has been unable to find any notice of unfavourable cases in Paris, though the letters of both the Americans quoted state that the use of the ether in the hospitals is general, and that it is considered there as an established remedy. We have also the still more recent testimony of Dr. Gibson to the same effect.

In Edinburg, where the subject of etherization has excited great interest, and where it has been extensively practiced, we find, in the London and Edinburg Monthly Journal of Medicine, for the third, fourth and fifth months of the year, amidst a great amount of intelligence favourable to the ether, reports of three cases of death occurring after it had been used, at the Edinburg Royal Infirmary. Accurate details of these cases are not given, but it is stated, in general terms, that all of the patients died *of secondary purulent deposits*. Two of them were cases of amputation; one of the leg, the patient dying a fortnight after the operation; another of tibio-tarsal amputation, in a girl aged 14 years, who had been long affected with caries of the tarsal bones, and fistulous openings leading from them; this patient lived six weeks after the operation. Of the third no account is published. The editor in recording these cases very properly asks the question, "Is this result the effect of ether?" leaving the answer to the judgment of his readers.

So far as our knowledge extends, the occurrence of secondary purulent deposits, after capital operations in large hospitals, is not

very extraordinary; and we can see no ground for attributing such an untoward occurrence to the operation of a transient cause, which existed but for a few moments, several weeks before the issue. If in these three cases, the ether acted as a poison and was the cause of death, it was certainly very tardy in its effects, and we should be slow to admit its agency without much clearer evidence than this vague statement furnishes.

In analyzing the above cases, it will be perceived:

Firstly. That *no* case is reported where the patient died from the *immediate* effects of ether, and hence that asphyxia, apoplexy, or fatal bleeding had nothing to do with the result.

Secondly. That all the deaths occurred after severe operations, considered in themselves dangerous to life, and that, in those cases where death occurred without reaction, the symptoms were in no way peculiar, or different from those occasionally observed after all large operations.

Thirdly. That in two of the cases reported as probably attributable to ether, the peculiar effects of the article, were not fully induced, both patients declaring that they had suffered pain.

Fourthly. That the post mortem appearances, so far as reported, furnish no satisfactory evidence that ether had any agency in producing the fatal result.

Taking an impartial view of these cases, we can see no ground for attributing to ether the fatal issue. Unless it could be shown that ether produces serious secondary effects, developing themselves some days or weeks after its administration, it does not appear philosophical to attribute results to it which have occurred long after the nervous system has recovered from its influence, especially when such effects may be fairly referred to other more obvious causes. Nor is it at all probable, reasoning from analogy, that these remote evils would arise. A diffusible evanescent vapour, which operates in a few minutes and passes off as rapidly, could scarcely leave behind it a permanent impression upon the system. The changes which it effects in the blood are the result of chemical reactions, which must cease as the vapour is withdrawn, and as the atmospheric air has free access to the breathing surfaces, and whatever mischief is induced should be as sudden and decisive, as the action of the producing cause.

What, then, is the position of the question so far as the present state of facts will enable us to decide?

On the one hand, in favour of the safety and efficiency of ether as a means of destroying pain; we have the concurrent testimony of many of the most eminent surgeons and obstetricians in this country and in Europe; not men of a day, who seize upon every novelty as a truth, or take hold of every plausible scheme which promises ephemeral notoriety, but eminent physicians who have been connected for a long series of years with some of the largest hospitals

of the world, and whose names are inseparably connected with the history and literature of these departments of science. In the hands of these masters of our art, ether has been given in a multitude of the most difficult and hazardous operations in surgery, its powers have been tested in various conditions of the economy, in childhood and in old age, in the feeble and vigorous, and in the sick and the healthy. It would, of course, be impossible to estimate the number of important operations which have been performed under the influence of ether within the past year, or since the practice has been introduced in different parts of the world; but when it is remembered, that from the first announcement of the discovery in Boston up to the present time, etherization has been adopted as a preparatory measure, before all large operations, at the Massachusetts General Hospital, and that it has been similarly employed to a great extent in the private surgical practice of New England, and to a limited extent in the public and private practice of many surgeons in other parts of the Union; it must be acknowledged that the experience of this country alone would furnish a very large number of cases in which it has been used with entire safety and effect.

But when we extend our vision to foreign countries, and call to mind that during the past nine months it has been adopted in most of the large hospitals of Great Britain; in the vast hospitals of Paris, and for the last six months, in the numerous institutions of like character in Germany, including the immense hospitals at Vienna and Berlin, we can form some idea of the extent to which it has been carried, and of the firm hold which this great American discovery has taken of the mind of the scientific world.

The records of medical science cannot, we think, furnish a parallel in the progress of any discovery, for the alacrity and promptitude with which it has been received and applied, and for the vast accumulation of results, which have flowed in from different portions of the world in the short space of one year. This fact is to be attributed, in a great measure, to the present extraordinary facilities of intercourse which exist in every portion of the civilized world, and which cause a voice uttered in one part of the vast amphitheatre, to be heard and responded to with a rapidity so amazing, as almost to startle those who occupy the position from which it proceeded.

From such a view, it is apparent, that in summing up the number of cases in which etherization has been employed, including those subjected to it in the practice of dentistry, we might count by hundreds and even by thousands, but that it would be impossible to arrive at any thing approaching an accurate calculation.

Against this accumulated affirmative evidence, what have we to oppose?

First. The various theoretical objections, based upon a supposed alteration in the chemical and vital constitution of the blood. It

is said that the blood, during the inhalation of ether, is deprived of its oxygen to an extent which renders it unfit for the purposes of life; that the amount and plasticity of its fibrine is deteriorated; that it becomes black and vitiated like the blood in malignant fevers, and that, as a consequence of all this, fatal hemorrhages must ensue after large operations, and union by the first intention be interfered with. As an argument in favour of this theory, the appearance of the blood, as exhibited in the dissection of persons who have died after operations in which ether has been used, has been referred to. This theory is based upon the ground that the effects of ether upon the blood are *permanent* not *transient*, and would seem to exclude the agency of atmospheric air in restoring the natural, chemical and vital properties of the fluid, after the process of inhalation has ceased. That the blood might be deprived of its oxygen to an extent to destroy life by the prolonged and injudicious use of ether, causing sudden death by asphyxia, is not denied, but that its employment with a proper admixture of atmospheric air and not carried to the point of asphyxia, would produce permanent changes in the blood which might slowly destroy life, is not proved, nor is it at all probable. In regard to the post mortem appearances of the blood, viz. its darkness and fluidity, which have been so much insisted upon as evidences of the injurious action of ether; these prove nothing, as they occur in connexion with so many other morbid conditions as not of *themselves* to justify any positive inferences as to the pathological condition of the fluid. An eminent pathological anatomist in London, recently stated to Dr. Forbes the following opinion on this subject. "It has," says he, "always been in my mind that the state of the blood coincides with so great a variety of morbid changes, that I should never be able to rely on it, as characteristic of any thing especially."

But against these hypothetical objections, we have the much more positive evidence of facts. In none of the deaths reported as occurring after the use of ether, has hemorrhage been considered as the cause, and some operators have even remarked that the hemorrhage after large operations upon etherized persons has been unusually small. There is also a general concurrence in the reports as to the facility with which wounds heal, and no complaints which we have seen of the occurrence of undue inflammation, sloughing, or other untoward symptoms.

It has also been objected, with some plausibility, that the unnatural condition into which the circulation is thrown, as evinced by increased frequency and diminished force of the pulse, might augment the hazard to life in large operations, where the hemorrhage is necessarily copious. This fear does not appear however to have been realized by experience, nor is this remarkable, when we consider that the excitement of the circulation is transient, and that as the system comes under the full impression of the ether,

the pulse generally becomes fuller and slower, the system appearing in fact to be rather exalted than depressed.

In addition to these theoretical objections, we have reports of some ten cases of death occurring within a period varying from thirty-six hours to six weeks after the inhalation of ether, and attributed in part, at least, to its agency; but in none of these cases have we satisfactory evidence of ether having been either the immediate or remote cause of the fatal issue. We have surmises and fears, but no positive data upon which to base a positive conclusion. The immense number of favourable cases which have occurred, furnishing, it is true, negative testimony upon the question, but this of itself is not conclusive.

That other fatal cases more directly attributable to the influence of ether may have occurred we do not deny, but after a patient investigation we have been unable to find them; nor are we inclined to believe, that if deaths had occurred they would readily have escaped the public eye. The intense interest excited on this subject, has given to operations performed under the influence of ether, a remarkable notoriety. The action and subsequent effects of the vapour have been closely investigated by critical observers; the cautious and timid have been watching for disasters, while the incredulous who have set their faces against this extraordinary innovation upon the old regimé of shouting and twisting under the inflictions of the knife, and who have been anticipating the bursting of this last surgical bubble, have not been slow in seizing upon every fact which would give strength to their impressions.

Under all these circumstances it is remarkable, that considering the rapid and extensive diffusion of this agent over so large a portion of the world, and the indiscriminate manner in which it has been employed, that so few accidents should have been recorded. We can attribute this fact to no other cause than to the safety of the article, while at the same time, the previous avoidance of accidents should be no excuse for future negligence in the administration of an agent so potent and peculiar.

No powerful medicine, capable in an over-dose, of suddenly destroying life, should be used indiscriminately and upon trifling occasions, nor should this capability of producing fatal effects be viewed as an objection to it in the hands of judicious persons.

With the exercise of a sound discretion, we can see no reason therefore why etherization should not now be considered as a safe preparatory process to be instituted before most important surgical operations in surgery. The circumstances which would contra-indicate its use, will be briefly considered under another head.

The preceding remarks have reference to the main question in this inquiry, viz. The safety and efficiency of etherization as a means of destroying pain.

The extent to which it is likely to prove applicable in surgical

practice, will deserve a few moments consideration. From the peculiar and variable effects produced upon the human system by ether, it is easy to infer that there may be cases in which its employment would produce embarrassment and difficulty in the performance of an operation which would not justify its use, on the ground of exempting the patient from pain.

We shall briefly state some of these effects, with a view of placing this branch of the inquiry in a more clear light. Like all other agents which operate powerfully on the nervous system, the action of this article is not uniform. Thus, in some individuals inhalation will produce its peculiar effects in from two to four minutes, while in others, under like circumstances, eight, ten, or even twenty minutes may be required to produce the same results. In certain temperaments, violent and furious excitement marks the early period of etherization, the passions declare themselves in the various degrees and forms of which they are capable, and all self control is lost; in others, calmness and quietude prevail from the first, and the imagination is excited by pleasing dreams; in others, there is a sense of undefined uneasiness, at a time when in a natural condition acute pain would be felt. In some persons, while the feeling of pain is entirely obliterated, the sense of touch remains. A striking illustration of this fact occurred in this city, under the notice of Dr. S. G. Morton; a gentleman who was submitting to the operation of passing a stricture of the urethra, and was entirely unconscious of the pain, requested one of the attendants to keep a fly off his thigh, as he was very much annoyed by it. In other instances, the taste and smell are lost, while hearing and sight are preserved; the patient being able to hear and see all that is going on around him, and yet being unconscious of pain. In some persons the intelligence and will are active under etherization, while the sensibility is destroyed. In others, there is a total unconsciousness and the individual feels on awaking, as though the period through which he had passed was a blank in his existence. This condition is happily set forth by the learned editor of the British and Foreign Medical Review; speaking from his own experience, he remarks: "We ourselves, on trying the ether, as in duty bound to do, were not favoured by any visions good or bad; our mental condition, was, if we may so speak, that of annihilation or utter oblivion; a piece seemed snipped out of the thread of vital consciousness, as if our identity had been cut in twain."

In some few instances, convulsions are reported to have occurred from the sudden action of ether, but they have been of short duration, and have left no ill effects behind them. When the insensibility is complete, the head drops, the pupil is turned up under the eye, and the lids quiver, presenting an appearance rather alarming to those unaccustomed to such scenes.

The pulse during etherization, is generally exalted and rapid in

the early stages of the process, but becomes slower and firmer as the full effect of the ether is induced. There is probably, however, a variety in this respect, as we have seen several cases reported where the pulse diminished in frequency from the first; and one case where a very rapid pulse was speedily reduced as the system was brought under the influence of the vapour. The period during which insensibility remains, is supposed to bear some relation to the time required in inducing it; complete consciousness is restored generally in from two to five minutes, while in a few instances from twenty to thirty minutes have passed; on waking, some persons, especially nervous females, talk in an excited strain, shed tears, and laugh by turns, as in an hysterical paroxysm; and in a small number, headache and nervous irritability continues for several days, though generally all the effects have passed away in a few hours.

When the influence of ether is complete, all voluntary motion is suspended, and the voluntary muscles are completely relaxed.

All these phenomena indicate disturbance of the nervous function, and many of them are observed as effects of other anodynes and stimulants, and in the various diseases which affect the nervous system. These are not indicative of serious derangement in any organ of the body, and judging from analogy, we should not anticipate permanent injury even from their prolonged continuance. In hysteria, delirium tremens, epilepsy, catalepsy, and in drunkenness, we see nervous disturbance to as great a degree, prolonged for hours, and even days, without danger to life, and in the first-named affection particularly, without permanent injury to the health.

The analogy between inebriation and etherization is however the most striking, and has been remarked by several writers. In both conditions, we observe a great variety in the phenomena dependant on the peculiar temperament or constitution of the individual. In the early stage of a "debauch," some persons are excited by pleasurable sensations, and become witty, good natured, and loquacious; while others are vindictive, sullen, and passionate. In the progress of inebriation, as insensibility to surrounding objects and impressions deepens, the pulse which was at first excited, becomes slower and fuller, and the respirations more prolonged; muscular relaxation is complete, and finally a profound slumber benumbs the senses; there is still however a degree of consciousness when roused by a loud cry, and the senses are seldom completely obliterated. Nausea, vomiting, and vertigo not unfrequently ensue as the effect of the stimulus subsides, and severe headache, loss of appetite and general malaise may continue for several days. In persons unaccustomed to stimulating drinks, a train of nervous symptoms not dissimilar to those observed in hysteria, often occur. To what extent insensibility to pain attends this state is perhaps doubtful, as but few opportunities occur of subjecting individuals to the test. Your reporter has seen, at least, one case where an amputation of the arm, following an ex-

tensive gun-shot wound, was performed at the Pennsylvania Hospital during intoxication, in which the patient appeared unconscious of acute suffering, and was talking to the bystanders during the whole period of the operation in the jocular strain of a drunken man, under pleasurable excitement, and without noticing what was going on until the first ligature was tightened, when he uttered an exclamation of pain and surprise.

The most important difference, so far at least as it relates to danger to life, between the two states of inebriation and etherization is, that in the latter condition the intoxicating agent is inspired and mixes directly with the blood, producing certain chemical changes therein, which if carried too far, and without proper precautions, might, as before remarked, induce asphyxia. Setting this aside, the effects upon the nervous function of the two agents, certainly exhibit a striking analogy, nor would the danger to life from sudden congestion or from after consequences appear to be as great from the transient impression of ether, as from the more permanent effects of alcohol.

It is not however within the scope of this report to discuss the physiological effects of ether upon the economy any farther than may be necessary, in judging of its applicability to surgical practice. Viewed in this aspect, it is evident that the varied impressions made upon different constitutions and temperaments, must constitute an objection to its indiscriminate employment. There are indeed cases, where the effects of inhalation have been so peculiar as to interfere greatly with the operations of the surgeon; instead of the calmness and repose so necessary to the satisfactory performance of an operation, patients have become restive and even violent, requiring a strong force to hold them; in other instances, nausea and vomiting have come on during an operation, embarrassing the proceedings, and in a few instances convulsions have been reported. Now although these effects may be the result of idiosyncrasy, and occur in a very small number of persons, and do not involve serious risk to life, still they deserve to be considered and guarded against; and no surgeon, it seems to us, should proceed in the performance of an important operation, without first ascertaining by experiment, the effect of the inhalation upon his patient. Speaking upon the subject, Professor Syme, of Edinburg, stated at a late meeting of the Medico-Chirurgical Society, that he found in most cases nausea, and very uncomfortable feelings induced by ether, though "he did not consider the fatal results, hitherto said to have been derived from its application, to have much weight, as an objection, on account of the difficulty of ascertaining how far this depended on inhalation." How far the inconvenience and uncomfortable feelings following ether should weigh against its employment, is a question which the surgeon and the patient should settle between them. That there are cases in which its effects might em-

barrass the proceedings of an operator to an extent that would make the objection to its employment valid, we think cannot be questioned, just as the effects of opium or other anodynes upon particular constitutions renders their use inadmissible, under circumstances where, in the large proportion of cases, they would be exceedingly useful and indispensable.

There is another class of cases in which etherial inhalation, would, it seems to us, be improper, viz: in those operations where the degree of pain induced by the surgeon determines in a great measure his course of proceeding; as, for instance, in the attempt to overcome a stricture of the urethra, or in the more important and difficult operation of crushing the stone in the bladder. In all cases, in fact, where an instrument is working in a concealed passage or cavity, surrounded by living tissue, which it is very important to guard against injury, pain is here a necessary safeguard, and the cries of the patient warn the surgeon of impending mischief, and become the guide to his movements. These exceptional cases will always be considered by the judicious surgeon, while they constitute no objection to the general application of the remedy. It is believed by those who have had large experience in the use of ether, that where the inhalation is properly conducted, the number of cases in which excitement, instead of stupor, will be produced, is very limited, probably not more than one in a hundred. There are also a very small number of cases where from idiosyncrasy the sensibility will be exalted instead of being benumbed by the action of ether; just as some persons will be kept awake by a dose of opium, which would have had a precisely opposite effect upon the great mass of individuals.

The length to which this report has been extended, will render it inexpedient to enter into a description of the various forms of inhaling apparatus which have been contrived for the administration of ether. It may be sufficient to state, that in Boston, where a great variety of methods have been resorted to, the most approved plan at present is, simply to apply a piece of sponge saturated with the ether, over the mouth and nostrils. To effect this properly, the sponge should be large, of an oval shape, and hollowed in the centre; it should be applied at first at a little distance from the face, and gradually brought down over the mouth and nose, until the effect is produced, when it may be removed and reapplied as occasion requires. The advantage of this simple method is, that there is sufficient admixture of atmospheric air with the vapour to do away all risk of an over-dose, while the quantity inhaled may be very easily regulated.

In concluding this rapid sketch of the history of this important discovery, we cannot avoid the conclusion, that the facts now before the profession attest the safety and efficiency of sulphuric ether in destroying the pain attendant on surgical operations. As it

regards the more extended application of this agent to the practice of obstetrics, or to the treatment of painful diseases, or even as it relates to its general use in surgery, future experience must determine. Like other powerful remedial agents, the propriety of its employment in particular cases must be judged of by the attending practitioner, guided by the best lights at his command.

That the discovery of the peculiar properties of ether is likely to prove highly beneficial in the practice of surgery, we cannot doubt, and if future investigations should confirm the experience of the past year, it is obvious that a most important change will be effected in the practice, not only of this department, but also of obstetrics.

If the pain attendant upon the knife of the surgeon, and the still more concentrated agony which is the invariable concomitant of the parturient act, can be banished; while in the one case the surgeon proceeds with his duty, and in the other, nature accomplishes one of her most important offices, then has science achieved a victory over disease and suffering of the highest interest to our race. It may be that future experience will cast a shade over the fair prospect which appears now to be unfolding, and that this event may never be realized; in the meanwhile, it becomes us carefully and impartially to contemplate the progress of this discovery, and to do what our hands find to do, in establishing the Truth.

SUMMARY

OF THE

TRANSACTIONS OF THE

COLLEGE OF PHYSICIANS

OF PHILADELPHIA.

FROM DECEMBER, 1847, TO MARCH, 1848, INCLUSIVE.

Stated Meeting, December 7th, 1847.

Dr. WOOD, Vice President, in the chair.

Present, thirty members.

The Committee on the Subject of Prescribing by Apothecaries, made a verbal report and were continued.

The Committee on the Subject of Registration of Births, Marriages, and Deaths, reported as follows:—

The Committee appointed to consider the expediency, and if deemed expedient, a mode of urging upon the Legislature of Pennsylvania, the importance of enacting a law providing for the Registration of Births, Deaths, and Marriages, beg leave to present the following

REPORT.

First. In regard to the expediency of the step proposed. The late National Medical Convention, besides addressing its memorial upon the subject of Registration to all of the State Governments, requested the several State Medical Societies in the Union to assume the

duty of carrying out the objects of that memorial. In Pennsylvania, where no State Medical Society exists, there is no Medical Association or Corporation better fitted than this College, by its age and respectability, to influence the Legislature in a matter which touches so closely the physical and moral prosperity of the citizens of this Commonwealth.

In its charter it is declared to be among the objects of this College to "lessen human misery" * * "by observing the effects of different seasons, climates, and situations on the human body," * * "and by recording the changes which are produced in diseases by the progress of agriculture, arts, population, and manners,"—objects which cannot be attained so long as the Records of Births and Deaths include returns from only so small a portion of the population as at present. Your committee therefore believe, that there is a peculiar propriety in soliciting from the Government a law which will enable the College of Physicians to carry out the intentions of its founders.

Upon general scientific and political grounds the importance of a Registration law, must, it is believed, be so apparent to every Fellow of the College as to require no illustration at the hands of your committee; they are persuaded, that the bearing of such a law upon the welfare of the community must be evident enough to enlist the College in an effort to procure its enactment.

2nd. In regard to the mode of accomplishing this object. Your Committee are of opinion that the best mode of presenting the wishes of the College to the Legislature is by memorial or petition, and they accordingly beg leave to present to the College the draft hereunto annexed. Believing, however, that the mere presentation of such a petition would, very probably, be unsuccessful in procuring the desired legislation, they propose that the subject be particularly commended and entrusted to such members of the General Assembly as may be found willing to bring it before the Legislature, and to use their efforts to obtain the enactment of a Registration law. And in order to give consistency and effect to the action of the College, they further suggest, that the whole subject be confided to the management of a Special Committee.

Your Committee have embodied the foregoing views in the following Resolutions, which they respectfully propose for the adoption of the College.

Resolved, That it is expedient for the College of Physicians to memorialize the Legislature of Pennsylvania, praying for the enactment of a law providing for the Registration of Births, Marriages, and Deaths in this Commonwealth; for periodical returns of the same to the Government of the State, and for their annual publication, in the form of a Report to the Legislature.

Resolved, That the subjoined memorial be adopted as expressing the opinions and wishes of the College in reference to Registration;

that it be signed by the officers of the College, and transmitted to the Governor, and to the presiding officers of the Senate and House of Representatives of this State.

Resolved, That the Representatives in the General Assembly from this City and County be requested to use their exertions for procuring a favourable response to the Petition of the College.

Resolved, That a Committee of be appointed to promote the proposed measure, by inviting the co-operation of physicians in various parts of the State, and that of members of the Legislature, laying before them information connected with the subject of Registration, and in general, by doing whatever, in the exercise of a sound discretion, they may consider essential to the success of the object in view.

All which is respectfully submitted.

ALFRED STILLE,
G. EMERSON,
HENRY BOND.

Philadelphia, Dec. 7th, 1847.

The College of Physicians of Philadelphia respectfully petition the Senate and House of Representatives of the Commonwealth of Pennsylvania for the passage of a Law whereby an Annual Registration of the Births, Deaths, and Marriages taking place throughout the State may be established, for purposes of particular and general utility.

The fact, that, at the present day, no European government is without a provision of the kind, is, we think, of itself sufficient to show the importance attached to the subject in most enlightened countries. It was only in 1838 that a General Registration was established in England and Wales. Since that time yearly statements have been published, setting forth, with great accuracy, the conditions of the population, not only in the towns but in every part of the country, relating to the changes produced through deaths and marriages. Short as has been the period since these records and investigations were commenced, it may be affirmed, that few subjects are now attracting more notice among the more intelligent portion of the community, or exerting greater influence upon the public mind generally.

On this side of the Atlantic, most of our large cities have for many years kept Registers principally of Births and Deaths. The annual statements made from these, and published, generally, in the form of Bills of Mortality, constitute so many valuable records for present advantage and future comparison.

But as the town population of the United States constitutes much the smallest proportion, the important changes going on in the vast rural portion can only be estimated by conjecture, in the absence of all correct data. About five years ago, one of the sister States set

an example of general registration, and we now possess five annual reports, made to successive Legislatures, embracing returns of the births, marriages, and deaths which have taken place during five consecutive years throughout the whole population of Massachusetts. New York, following the example, has also, at the last meeting of her Legislature, passed a law providing for a general registration of the births, deaths, and marriages taking place within her borders.

Among the advantages to be derived from such a system, the following may be mentioned:

In regard to Marriages,—the uses to be derived from a record of these in establishing rights and claims, are familiarly known. The advance or decline of prosperity among the industrious classes, may be indicated by the ascertained number of marriages. In England, and other European States, where the signature of the parties is required on solemnization, the proportion of those unable to sign their names, affords a very fair criterion of the condition of the population as to the extension of education.

In regard to the registration of Births;—in estimating the increase or decrease of population, it is of primary importance to know the amount of these, for the purpose, among others, of comparing them with the deaths, and ascertaining thus the accession through immigration.

Among the advantages derivable from a record of deaths, one of the most important is its bearing upon Public Health, as it tends to show the effects of malign influences wherever these exist. By awakening attention to these, the necessity of measures calculated to improve public health will be rendered more apparent and imperative. It is admitted by those who have devoted especial attention to the subject, that in most instances in which the rates of mortality are excessive, and especially where the children of the poor are the chief sufferers, such excess may be traced to preventable causes.

This last branch of the subject, undivested of its philanthropical bearings, may be regarded as one of mere political economy or pecuniary calculation. Whatever causes tend to impair the health of a population, must reduce the amount of productive labour, and necessarily diminish the wealth of the community. It has been aptly observed by an able authority, that "what a sick workman or operative would be to a capitalist who was obliged to maintain him, a sick citizen is to the Republic."* Where, therefore, enactments can be made, through which the evil influences operating to impair health and increase mortality to an unusual extent may be discovered, such laws are surely proper subjects of legislation, not only from humane considerations, but from their conducing to public prosperity.

* Horace Mann.

Many companies for the insurance of lives and granting annuities have been chartered by the Legislatures of Pennsylvania and other States. The business of these companies is founded upon a knowledge of the average chances of life at different periods, ascertained through registrations, embracing a great amount of deaths at different ages. Individuals in active business, and especially those whose loss would leave a family unprovided for, derive the greatest advantages from such institutions, which may be made as available to the rural population as to that of cities. Hence, another strong reason for instituting a system of registration, through which the chances of life in country places may be fairly estimated.

To these more prominent advantages derivable from general registrations, applicable to the exigencies of the present day, may be added those afforded to future generations, by furnishing a means of drawing interesting and useful comparisons. The ancient Romans preserved with great care, registers showing the births, sexes, periods of puberty, manhood, age at death, *etc.* Such records, kept by order of Domitius Ulpianus, prime minister of Alexander Severus, affords us, at the present day, the means of ascertaining the mean duration of life in Rome nearly two thousand years ago. By comparing this with the results of registrations kept in modern times, we are enabled to demonstrate the interesting fact of the considerable extension of the average period of human life in various cities and countries. How gratifying is it to be able to establish the fact of the happy operation of ameliorating influences, keeping pace with the diffusion of intelligence, the improvements in the arts and sciences, and the extension of the comforts and appliances of civilization.

The several resolutions appended to the foregoing report were adopted. The blank in the fourth resolution was filled by "five;" and Drs. Stille, Condie, Emerson, Jackson, and Parrish were appointed the Committee.

On motion, the College proceeded to consider the resolutions appended to the report of the Committee on the subject of prescribing by Apothecaries, presented at the meeting of October 5th, 1847.

The first resolution, after being amended, was adopted as follows:—

Resolved, That in the opinion of the College, the duties of prescribing and compounding medicines in this city, should be kept distinct, and that any connection with, or moneyed interest in apothecary stores, on the part of Physicians, should be discountenanced.

The two remaining resolutions were laid upon the table.

On motion, it was *Resolved*, That a committee be appointed to

address a communication to the Philadelphia College of Pharmacy, on the subject of Apothecaries prescribing for diseases, and to request that the said College would take such action in relation thereto as they may deem proper.

Committee, Drs. H. H. Smith, Wood, and Condie.

The Committee of Publication reported that they had issued the third number of the 2d volume of the Summary of Transactions.

Dr. Bond tendered his resignation as the Committee to prepare the Annual Report on Diseases of Women; and, on motion, the resignation was accepted.

Dr. Huston presented the outlines of a case which he believed to indicate a close connection between Puerperal Fever and Erysipelas.

On the 23d of October, a lady, who was apparently in the enjoyment of good health, was confined. Forty-eight hours after delivery she was seized with a chill, followed by a smart fever; in a few hours the febrile symptoms augmented in intensity, the pulse became very frequent, without however any tenderness or distension of the abdomen. Thirty ounces of blood were taken from the arm, and five grains of calomel and one of opium were administered. On the ensuing morning, the fever still continued, with a frequent, small and tense pulse, (from 130 to 140 in a minute) hot dry skin, parched tongue, increased thirst, accelerated respiration, and at the same time the abdomen having become enlarged and tender to the touch the bleeding was repeated; the combination of calomel and opium was directed, to be continued every four hours, and frictions with turpentine to be applied externally. On the 27th, the more prominent symptoms were considerably abated; the tenderness of the abdomen was removed; the lochial and lacteal secretions were going on regularly. But as the peritoneal inflammation declined, erysipelas of the face manifested itself. On the 28th, the patient complained of stiffness of the eyes and a difficulty of seeing; upon opening the window to admit more light into the room, found the face, from the temples, over the malar bones, down to the chin, covered with an erysipelatous inflammation, of a bright red colour, swollen, hot and œdematous; there was an augmentation of the febrile symptoms, and a dark brown, glazed tongue; directed Dovers' powder and sulphate of quinia. The disease ran its course regularly, and commenced to vesicate. On the 31st the erysipelatous inflammation was on the decline, but the general symptoms were less favourable; the patient sunk very rapidly and died during the night.

A few days after the death of the mother, her daughter, a child

two or three years of age, was attacked with malignant scarlatina, of which she died, and a short time subsequently, the infant child, a few days old, was also attacked with scarlatina, but recovered.

Dr. Pepper did not consider that the fact of the existence of peritoneal inflammation in the case just related was satisfactorily established. It was not very certain that the erysipelas had not existed earlier than the period when it was discovered. The room it is stated was dark, and it is possible that the eruption upon the face might have existed without Dr. H. having perceived it. Abdominal tenderness is stated to have set in early, but tenderness of this part is so common after delivery, that it alone cannot be received as an indication of peritoneal inflammation.

A rapid pulse and high fever are also very common during the puerperal state. The entire febrile symptoms may have preceded the eruption upon the face, and, at the same time, have been closely connected with the latter. Febrile symptoms are very common precursors of erysipelas. Tumefaction and tenderness or even pain of the abdomen are no certain indications of peritonitis; these symptoms may be caused by flatulence and neuralgic pain, which are not of unusual occurrence after parturition.

Dr. Gibbons saw a case of puerperal fever in which patches of erysipelas were formed on the thigh, terminating in gangrene; there appeared to be an effort in this case to establish erysipelas on the skin.

Dr. Stille considered the view taken by Dr. Pepper of the case related, to be the only admissible one. We know certainly that the patient had erysipelas, but we have no certainty that she had peritonitis; there is nothing which militates against the idea of the case being one simply of erysipelas in Dr. Huston's narration of its symptoms. The probability is that the disease was going on for several days before it was discovered; abdominal tenderness in puerperal women is not of itself an evidence of peritonitis. All the symptoms of the case could be explained upon the supposition of its having been from beginning to end, one simply of erysipelas.

Dr. Huston supposed that the identity of puerperal fever and erysipelas was now fully established; the records of cases are certainly abundant, which prove this identity. In the case he had related this evening, there was sudden and rapid development of pain in the abdomen, without any complaint of pain about the eyes or face; he had repeatedly looked at the tongue without discovering any erysipelatous eruption on the face. The patient had taken oil and opium, which would certainly have relieved any transient pain, but did not, in any degree, relieve the pain in this case, and relief was only obtained

after several days, and by the employment of large bleedings. It was not until after the abdominal pain was removed that the complaint of the eyes was made, and in consequence of the patient's intolerance of light, the room was then darkened, not before. He had no doubt that the disease of the face had set in a day or two before it was noticed; but not before the hot, dry skin, thirst, rapid pulse, inability to extend the limbs, and tenderness and tumefaction of the abdomen had occurred, all of which latter symptoms must certainly be received as evidence of the existence of peritonitis.

Dr. Stille. Only two of the symptoms recited are peculiar to peritonitis—the inability to extend the limbs and the tenderness of the abdomen. It is said that the bleeding relieved the disease; now if it had been really peritonitis it is not probable that this result would have occurred so promptly.

Dr. S. has met with a case, in a recently delivered female, which presented nearly all the symptoms, the presence of which, in the one related this evening by Dr. Huston, are considered by him as diagnostic of puerperal peritonitis, all of which symptoms disappeared in a very short time without any active treatment having been instituted.

But, on the supposition that it was a case of erysipelatous affection of the peritoneum, in what manner are we to explain the supposed relationship between the internal disease and that of the face. Dr. Huston could not, certainly, suppose that a substantial metastasis of the erysipelas took place from the peritoneum to the face. In what manner, then, and by what route are we to suppose that the disease travelled from the interior of the abdomen to the surface.

Dr. S. did not deny the possibility of an erysipelatous affection of the face making its appearance upon the decline of a peritonitis; but did not believe that even such a fact, did it exist, would be sufficient to prove the identity of the two diseases. The difficulty in Dr. H.'s case is the absence of any conclusive evidence that peritonitis had preceded the erysipelas.

Dr. Condie was not inclined to call in question the accuracy of Dr. Huston's diagnosis in the case related by him. The symptoms exhibited by the patient were certainly those of one of the most common forms of sporadic puerperal fever, and were removed by a plan of treatment, which Dr. C. has repeatedly known to succeed in arresting similar cases, in a period as short as in the case in dispute. Dr. Condie did not suppose that the history given by Dr. H. afforded any evidence of the transfer of erysipelas from the peritoneum to the face, but merely exhibits the affinity or close connection between that disease and puerperal fever. It is not necessary to suppose that erysipelas is a strictly local affection, it is more than probable that it is dependant upon a morbid condition or predispo-

sition much more extended than, if we confine our attention to the external phenomena, we should be led to suppose. This morbid condition may give rise in the female, after delivery, to the symptoms of puerperal fever, or under ordinary circumstances to the usual symptoms of erysipelas. Hence the latter may succeed immediately to the former, not in consequence of the disease passing either by continuity of surface, or by metastasis, from the peritoneum to the surface, but from accidental circumstances causing the development, in an individual in whom the general morbid condition or predisposition exists, of the external symptoms of erysipelas, after the disease of the peritoneum has been suspended or removed.

Of the intimate relation that exists between erysipelas and puerperal fever, Dr. C. considered that we had the most incontestible evidence; numerous facts have been adduced which would certainly seem to indicate that both diseases are produced by the same morbific cause.

Stated Meeting, January 4th, 1848.

Dr. Wood, Vice President, in the chair.

Present, twenty-two members.

Dr. Moreton Stille was duly admitted a Fellow of the College.

The Committee on Registration reported, that they had prepared a bill for presentation to the Legislature, providing for the registration of marriages, births, and deaths throughout the State, together with an Address to the Medical Profession of the State of Pennsylvania urging their attention to the subject, and requested permission to have the said address printed for distribution, when, on motion, the said request was granted.

The Address referred to is as follows:—

To the Medical Profession of Pennsylvania.

The undersigned, a Committee of the "Philadelphia College of Physicians," charged with presenting the subject of *Registration* to the Physicians of Pennsylvania, beg leave, in pursuance of the object of their appointment, to lay before you the following remarks:

The late National Medical Convention adopted an Address to the several State Governments, praying them to provide by law for the

Registration of Births, Marriages, and Deaths. The College of Physicians directed a similar memorial to be laid before the government of Pennsylvania. Both of these documents are now in the hands of the Legislature, and you are respectfully invited to exert your influence with that body for their favourable consideration.

In urging you to take this step the undersigned will pass by the advantages which a system of Registration offers to the political economist and the legislator, and confine their attention to the motives which should induce physicians to promote the enactment of a Registration law.

It has been correctly regarded as one of the greatest benefits conferred by a system of Registration, that it settles the nativity of every citizen with such certainty, that his claims for property coming to him by descent can never be defeated, when founded in justice—but the same system furnishes, with equal accuracy, a statement of the degree of every one's predisposition to disease, whenever the malady of which his ancestors died is susceptible of being inherited, and in this manner contributes largely to illustrate the subject of mortal hereditary diseases.

A record of Births and Marriages, also, by permitting the investigator to trace up the genealogy of a family and its collaterals, through several generations, would aid materially in determining the influence of consanguinity, constitutional peculiarities, social condition, &c., upon the procreative faculty, and the hereditary transmission of disease. It would furnish *data* for determining whether large families, the issue of early marriages, really increase the productive power of the State in proportion to their numbers, or, in other words, whether, as a general rule, a numerous progeny is consistent with a high degree of physical and mental vigour. Finally, it would show the good or evil consequences of disparity of years in the parties contracting marriage.

In the best systems now employed, a registration of Deaths shows, not only the total mortality occurring in a given population, but the cause destroying life in every case, and, consequently, becomes a precious record to the physician, and when interpreted by him, an instrument of incalculable good to the Commonwealth. The aggregate annual mortality of our population, is now unknown, and the proportions of it due to different causes cannot even be conjectured. Little is known of the forms of disease which prevail in various parts of the State, and still less of the relative mortality occurring in cities, towns, and villages, rural districts, and particular localities, and of that affecting persons of different ages, sexes, and social conditions. Nor is any more accurate information possessed in regard to the modifying influences exerted by epidemics upon the average mortality of different places, and those of transitory medical constitutions upon ordinary diseases. But if a proper record of deaths were kept, it would show, that in certain places, and amongst

certain classes of people, the mortality is either greater or less than that affecting the community at large, and would often lead to a successful inquiry into the causes which operate injuriously upon one place or class, and those which confer upon others a comparative immunity. It needs no argument to show that such a record would, also, when illustrated by strictly medical reports, do more to establish the laws of epidemic and endemic diseases, and medical constitutions, than has ever been accomplished by the industry of individuals.

Several of the foregoing propositions are drawn from the experience of other countries in registration. It appears from the report of the commissioners presented to the British Parliament, in 1845, that the statements made in successive reports of the Registrar-General, of excessive mortality occurring in various places, had induced many persons to search out its causes. These inquiries resulted in the removal of cess-pools, and accumulations of putrid substances, in the digging of sewers, &c. The commissioners state, that in Manchester, after paving and draining in twenty streets, there was such an amelioration in the health of the improved district, that but ninety deaths annually took place, where one hundred and ten occurred before.

Not unfrequently the received opinion of the healthfulness of a place has been directly contradicted by the evidence of registration. In this connexion, the case of Liverpool is remarkable. The rapid increase of that great commercial mart was formerly attributed, amongst other things, to the salubrity of the air; but it is now ascertained, that at all periods of life, the chances of living in Liverpool, are actually less than in any other known place of equal population. Comparing it with Surrey, a rural district of England, "it appears that while a child, at birth, has a chance of living forty-five years in Surrey, it has a chance of living only twenty-five in Liverpool."

There is too much reason for apprehending that Americans err greatly in their estimate of the healthfulness of this country. It has been calculated that while the average age of the whole living population of the United States is 22 years and 2 months, that of all living in England and Wales is 26 years and 7 months. It has also been shown, that while but about 56 per cent. of the population of the United States survive the age of 15, and 4 per cent. only that of 60,—nearly 64 per cent. of the population of England survive the former, and more than 7 per cent. the latter age. These statistical results and common observation mutually confirm one another. European travellers in this country wonder that so few old persons are to be met with, and Americans abroad are surprised at seeing so many persons advanced in life, engaging still in active pursuits, and retaining the cheerfulness and vigour of middle age.

It is not possible that the mortality amongst the well-fed and well-

clothed inhabitants of this country should so much exceed that of the comparatively wretched masses of the English people, or that so few amongst the former should survive the labours of active life to guide and counsel their descendants, unless there were some radical error in our habits of living, or some peculiarly noxious influences of a more general kind, were acting upon the population. Some of these evil habits and influences may, indeed, be conjectured, and their malign effects in particular cases be averted, but until the results of Registration demonstrate their existence and character upon a large scale, the people will not be induced to believe them real, or take pains to escape from them. It is well known that there is a large sacrifice of human life in this country from the careless or reckless management of public conveyances, manufactories, &c., but its actual amount has never yet been ascertained. Yet no one can doubt that if every case of death by accident were reported, with its attendant circumstances, and annually published by the government, attention would speedily be drawn to the evil, and effectual means taken to mitigate it. What is true of this particular case, is no less so of many others, and is in principle applicable to all in which the cause of mortality is in any degree removable.

The degree of mortality in ordinary diseases depends chiefly upon two circumstances,—the condition of the patient, and his treatment. If, therefore, it is found that deaths from certain diseases are especially frequent amongst persons of certain ages, constitutions, habits, &c., or in certain trades, professions, situations, &c., the causes of this susceptibility may be discovered, and perhaps removed. In like manner, if it is found that a given disease is more fatal in one section of country where a particular treatment is employed, than in another where a different method is pursued, the discovery would suggest an alteration of the practice adopted in the former place, as well as an inquiry into all the circumstances concerned in bringing about the unfavourable result. Many other examples of the manner in which a complete system of Registration may be employed in solving medical problems might here be adduced, but a simple consideration of the various facts developed by such a system, will naturally suggest them to every reflecting mind.

In addition to the motives now presented, there is another, which it is not doubted, will induce the cheerful co-operation of the physicians of Pennsylvania in procuring the enactment of a Registration Law. The medical is a benevolent profession, and has always been foremost in advocating and proposing plans for the increase of human happiness. Standing aloof from the political arena, its members may appeal, in behalf of humanity, to legislative bodies, without being suspected of disingenuous views or sordid motives. They may, and ought therefore, to plead the cause of the poor and diseased before the government of the State;—to show that by re-

ducing the amount of sickness and death, the means of the poor, and consequently the wealth and power of the State are increased —while, on the other hand, prolonged sickness and premature death make paupers of hundreds of families, and thereby not only directly exhaust the energy of the Commonwealth, but create a burden for whose support the strong must labour, as well as for their own. They ought to represent respectfully, but earnestly, that a solicitude to provide by legislation for the development of the material resources of the country, and to stimulate the productiveness of agriculture, manufacture, and trade, should not cause the interests of life and health to be neglected. For without health, happiness is necessarily imperfect. Without health it is difficult to gain riches, or enjoy them, even during the active period of life; still less can they be expected to accompany that old age which all look forward to as a season of repose and comfort, but which in our present social condition, so few, comparatively, attain.

With these arguments the undersigned commend the subject of Registration to their professional brethren throughout the State; renewing the request that they will employ both personal and associated influence, to induce the Legislature now in session, to enact a law providing for the Registration of Births, Marriages, and Deaths, in such a manner as to insure the attainment of the objects set forth in this Address.

Samuel Jackson,
Alfred Stille,
Gouverneur Emerson,
Isaac Parrish,
D. Francis Condie.

A communication was received from the Northern Medical Association of the county of Philadelphia, inviting the attendance of the College on the occasion of the delivery of the Annual Address by Dr. Naudain, on the evening of Friday January 7th.

The invitation was, on motion, accepted.

The Committee on Fee Bill reported progress, and were continued.

Dr. Hays read the following communication addressed to him.

By order of the Chester County Medical Society, I transmit a copy of Preamble and Resolutions passed at a meeting of the Society on the 1st instant, to be laid before the College of Physicians of Philadelphia, soliciting their co-operation.

" Whereas, no State Medical Society exists in Pennsylvania; and believing that such a society would contribute to the advancement of medical knowledge, therefore,

"*Resolved*, That it is expedient to hold a convention at such time and place as may hereafter be agreed upon, to take the subject into consideration, and effect such a permanent organization as may accomplish the object in view."

"*Resolved*, That Dr. Worthington Parish, Huddleson, Townsend, and Harry be delegates to represent this Society in said convention."

(Signed,) C. W. Parish,
Cor. Sec. Ches. Co. Med. Soc.

(Dated,) Dec. 1st, 1847.

The preamble and resolutions recited in the said communication, were, on motion, referred to a committee to consider the subject embraced in them, and to report to the College what action it is expedient for it to take in relation thereto.

Committee, Drs. Hays, A. Stillé, and Norris.

A conversation then took place in reference to the effects of the inhalation of Chloroform and of Ether generally, for the relief of pain.

Stated Meeting, February 1st, 1848.

Dr. Wood, Vice President, in the chair.

Present, twenty-eight members.

Dr. Caspar Wister and Dr. Robert A. Given were duly admitted Fellows of the College.

The Committee on Publication reported that they had received from the Editors of the Southern Journal of Medicine and Pharmacy, the first two volumes of that Journal, neatly bound, as a donation to the Library.

Dr. Charles D. Meigs presented to the Library a copy of his work on Females and their Diseases, in letters to his Class, 1 vol. 8vo.

Dr. Zantzinger presented, on behalf of Dr. Picton of New Orleans, illustrations, in two lithographic drawings, of a case of enormous scrotal tumor, successfully operated on by the latter gentleman.

The Committee on revision of Fee Bill, presented their report, when, on motion, the College resolved itself into Committee of the whole to consider the several items of the bill as reported by the

Special Committee. The Committee, on rising, reported progress, and obtained leave to sit again on Tuesday evening, the 8th instant.

The Committee to which was referred the communication from the Chester County Medical Society, reported, that, after due consideration of the subject, it has appeared to them to be expedient that the College should be represented in the proposed convention, and they therefore recommend that the College shall take the necessary measures for that purpose.

The recommendation of the Committee was, on motion, adopted, and the Vice President of the College was requested to appoint ten Fellows as Delegates to the said convention.

The following communication from the Corresponding Secretary of the Lancaster City and County Medical Society, was read:

"At a meeting of the delegates of the Medical Society of Lancaster, City and County, held for the purpose of considering the proper time and place for holding a State Medical Convention, for the formation of a State Medical Society, and such other matters as appertain to this object, it was

"*Resolved*, That the Corresponding Secretary of the Society be requested to communicate to all the Societies and Colleges in the State, represented in the late National Medical Convention, as well as to such as were not represented, the election for delegates from this society for the purpose above stated, and to request their co-operation.

"*Resolved*, That in the said communication, the second Tuesday (11th) of April be suggested as the time, and the City of Lancaster, Pa., as the place for holding the said convention."

The delegates from the Lancaster City and County Society are Drs. Humes, Duffield, Kerfoot, Eshleman, Atlee, Clarkson.

(Signed,) Geo. B. Kerfoot,
Cor. Sec. Lan. Co. Med. Soc.

(Dated,) Jan. 3d, 1848.

The foregoing communication was, on motion, referred to the Committee on State Convention, with instructions to report at the adjourned meeting as to the proper time and place for holding said convention.

On motion, it was resolved that the College will proceed at the adjourned meeting to be held on Tuesday next, to elect ten Delegates to the meeting of the American Medical Association to be held in Baltimore in the month of May next.

The following Fellows were appointed a Committee to revise the Pharmacopœa of the United States:

Drs. Wood, Bache and Carson.

The following Preamble and Resolution were presented and laid on the table:

The undersigned Committee on Meteorology and Epidemics propose that, inasmuch as Dr. Thomas T. Hewson has, in fact, performed the duties of chairman of said committee, since its organization, his station as President of the College, preventing him from appearing as such, and whereas, the reports, as stated in each, have been invariably prepared by him, therefore, *Resolved*, That he be now appointed chairman of said Committee, and appear as such in the Report of the present year, and, hereafter, so long as it shall be agreeable to himself and to the College.

J. Wilson Moore,
W. Darrach.

Dr. West presented a pathological preparation exhibiting a false aneurism with obliteration, probably congenital, of the aorta, with the following history of the case.

I. G. an Italian by birth, and by occupation a cabinet-maker, aged 32 years; 5 feet 6 inches high; remarkably muscular and athletic; with the superior half of his body more developed than the lower; was taken on the 9th of January last, at noon, with great pain and distress in the chest, in consequence of which, my attendance was demanded in great haste.

The attack, which was represented by the messenger as *colic*, had seized him suddenly, the pain being attended with great nervous agitation and distress. On my arrival, the patient was lying *quite flat* on his back in bed, complaining of great pain in the cardiac region, but without any marked difficulty of breathing, and with no particular disturbance of the circulation, so far as was discoverable by the pulse. His countenance indicated suffering, but it was not flushed nor darkly suffused. No physical exploration, unfortunately, was made, his attack being regarded as chiefly nervous in character, and induced, it was thought, by great bodily and mental fatigue, incident to the recent illness of his wife, who had been removed but a week before, as a patient into the Insane department of the Pennsylvania Hospital. During her illness and afterwards, I had had occasion to see the husband frequently, but had never heard him complain of any thing; he appeared on the contrary, to be in the enjoyment of robust health.

After his death, I learned, that on last New Year's Eve he had been taken suddenly, whilst at a billiard room, with dyspnœa or orthopnea, of such severity as to require him to seek support with

his hands upon the window-sill, where he might also enjoy a larger supply of fresh air. This attack lasted for several minutes, but when it had passed over he was able to walk home without assistance. Agreeably to the views entertained of the nature of his affection, he was ordered to take portions of a mixture of Hoffman's anodyne, tinct. assafœtidæ and camphor; to have sinapisms applied to the ancles, and to maintain perfect repose both of body and mind.

At 10 P. M. I found him much relieved of his dyspnœa and general distress, but he still complained of pain about the heart. At this visit he was lying flat on his left side in bed, and without any apparent embarrassment either of the respiration or circulation. His friends considering him much better had left him for the night. The next morning he arose as usual and took his breakfast; shortly after this he said to a friend who had called to see him, that he wished the Doctor could relieve him of "this pain," indicating at the same time, its seat, by placing his hand over the heart. He had scarcely uttered these words when he suddenly fell on the floor and expired.

Autopsy.—Seven hours after death. Muscular system every where much developed; no congestion of the cutaneous surface. On exposing the interior of the chest, the pericardium, in its right half, was found deeply ecchymosed; within this sac was effused a pint of blood, fluid and coagulated, in about equal proportions. On removing this blood, an aneurismal tumor of the aorta, was discovered, extending from the origin of this vessel to the point at which the great vessels are given off from it. The large veins were all turgid with blood. The aneurism was both *true* and *false* in its character, being constituted by dilatation of the aorta in all its coats, and, also, by the expansion of its fibro-serous or pericardial investment; this latter membrane was much thickened, but not otherwise changed in structure, having been detached from the whole surface of the vessel, throughout the extent already mentioned, viz. from its origin at the heart to the great vessels springing from its arch, forming in this way, the *external or false* aneurismal sac. This latter was capable of containing at least half a gill of blood. The pouch of the aorta, formed by its dilatation, would have lodged a small hen's egg. The external sac displayed, at the distance of an inch from the heart, an opening or slit, about six lines in extent, which gave issue, finally, to the blood into the general cavity of the pericardium.

The aorta was reduced, at the point of dilatation, to the thickness of parchment, but was in no other way changed in structure. This artery, in the whole space comprised by the origins of its great vessels, did not exceed in capacity the left carotid. Upon the superior semi-circumference of the aorta, and at the distance of an inch from its valves, which by the way were only two in number, existed an irregular opening, of about ten lines in diameter, with torn, fringed edges. The point of rupture, for such was the character

of this opening, bordered immediately upon the heart. No morbid deposit was found in the coats of the aorta, nor did they present, in the neighborhood of the rupture, any other unnatural appearances than those of thinness and dilatation. These latter changes, it is presumed, were occasioned by the constant obstruction to the course of the blood, interposed by the peculiar condition of the aorta now to be described. This latter constituted the most interesting feature in the morbid anatomy of the case. On tracing the aorta beyond the origins of the great vessels, its cavity was found to be *entirely obliterated*, at a point immediately beyond or to the left of the ductus arteriosus, the remains of this latter vessel existing in the form of a ligamentous-like cord. The aorta presented at the point of obliteration, a well-defined and regular contraction, which looked exactly as if it had been produced by a ligature thrown around the artery, the closure of its cavity being occasioned, simply by the approximation of its sides. No tumour or any other source of compression existed either at, or in the neighbourhood of the stricture. Beyond this, the vessel immediately resumed very nearly its natural dimensions, and so continued throughout its course. It gave origin, in its whole length, to the usual branches; the upper pair of intercostals coming off immediately below the stricture.

The blood, therefore, in order to reach these vessels, was obliged to take a very circuitous route, viz. from the aorta into the subclavians, thence, as will be seen, through the internal mammaries and epigastrics, to the external iliacs, and finally, from these latter it had to *pass up* the aorta towards the heart, thus reversing entirely the natural currents. The great power of the heart in propelling the blood is well illustrated by the present case.

The large vessels springing from the arch of the aorta were much enlarged in capacity, especially the subclavians, which, as already intimated, were chiefly instrumental, by means of the internal mammaries and other branches, in keeping up the circulation between the heart and lower parts of the body. All the subclavian branches were increased in number and capacity, and so also were the vessels from below, with which they freely inosculated. The heart was generally enlarged and its walls thickened, but in neither of these respects to any remarkable extent. The internal mammary arteries, which pursued their course along the thoracic parietes in a *very tortuous* manner, were fully as large as the external iliacs, and so were the epigastric arteries; these vessels, viz. the mammaries and epigastrics, as already stated, constituting the main channels for keeping up the connexion of the circulation above and below the aortic stricture.

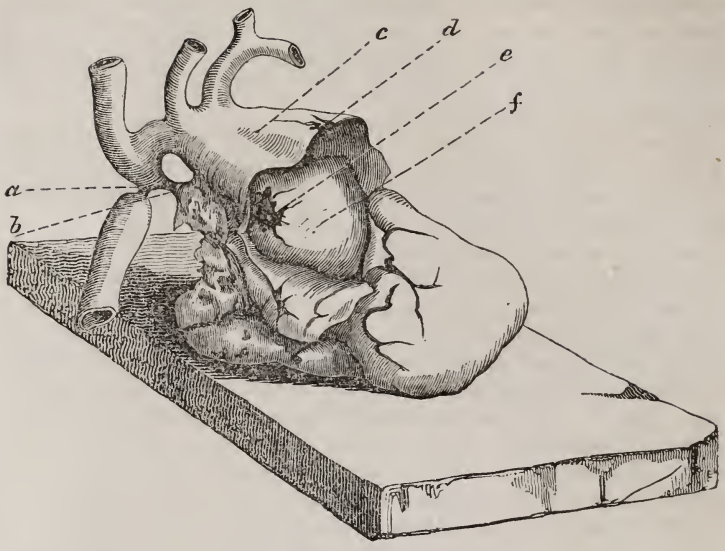
In regard to the obliteration of the aorta, the question at once arises, was it not, in all probability, congenital? Such, we believe, to have been the fact, since it can hardly be imagined that the walls of this vessel, at any time after birth, could have commenced and

maintained the close approximation necessary to ensure entire occlusion, without the aid of some extrinsic compulsory force, and nothing of this kind was revealed by dissection. We leave to the surgeon to determine the value of such cases in its bearing upon the operation for tying the aorta.

Independently of its abnormal anatomy, the case is interesting in a pathological point of view, as exhibiting the want of relation between the morbid lesions found after death, and the *rational* symptoms exhibited by the patient during life.

The physical signs, had they been consulted, might have revealed the aneurismal character of the disease, though they could not possibly have instructed us how to avert the necessarily fatal result.—During the last week of his life, the patient had been constantly under our notice, and yet within this period, he had never, we believe, complained of the slightest feeling of indisposition. The dilatation of the aorta, to a greater or less degree, had no doubt existed for a long period, probably from birth; but of this we cannot be certain. The period however, at which the blood found its way through the ruptured aorta into the external aneurismal sac, may be pretty satisfactorily conjectured, we think, by reference to the symptoms of the case. Was not the dissection of this fibro-serous covering of the aorta, by the gradual escape into it of the blood the cause of the severe local pain in the chest felt by the patient within such circumscribed limits, and which, it will be recollected, was the prominent, indeed the only marked symptom? Such, we conceive, would be a natural consequence of the disruption of this fibro-serous covering of the aorta, from its close attachment to the vessel. Owing, too, to the firmness of this connexion, the formation of the external sac must have been very gradually accomplished, and unattended therefore, with any marked sensation on the part of the patient, until by its great distension it began to give rise at times to the pain complained of. The bursting of the external aneurismal sac was, of course, the immediate cause of the rapidly fatal result.

The annexed drawing presents a very faithful representation of the aneurism after its rupture, and the contraction and obliteration of the aorta.



a. point of stricture of the aorta.
b. remains of ductus arteriosus.
c. external aneurismal sac.
d. opening of external sac.
e. seat of rupture of the aorta.
f. aorta dilated.

The College then adjourned to meet on Tuesday evening, February 8th.

Adjourned Meeting, February 8th, 1848.

Dr. Wood, Vice President, in the chair.

Present, twenty-nine members.

The Committee, to which was referred the communication from the Lancaster, City and County, Medical Society, reported, that, after a mature consideration of the most appropriate place and time for holding the proposed Convention for the establishment of a State Medical Society, they have decided to recommend the City of Lan-

caster as the place for the meeting of the Convention, and the 11th of April next as the period.

On motion, the recommendation of the Committee was adopted.

The College then proceeded to elect ten delegates to represent the College in the American Medical Association at its Session of May, 1848, when the following Fellows were elected:

Isaac Hays,	Alfred Stillé,
Samuel Jackson,	William Pepper,
Henry Bond,	Charles R. King,
D. Francis Condie,	J. Rodman Paul,
George Fox,	Charles D. Meigs.

Dr. Wood, Vice President, in obedience with the resolution passed at the last meeting of the College, announced the following as his appointment for Delegates to the Pennsylvania State Convention.

Samuel Jackson,	Lewis Rodman,
Isaac Hays,	J. Forsyth Meigs,
Joseph Carson,	Victor L. Godon,
Rene La Roche,	Squire Littell,
John D. Griscom,	Francis G. Smith.

On motion, both delegations were empowered to supply any vacancies that may occur in them respectively.

The College then resolved itself into a Committee of the Whole for the further consideration of the report of the Special Committee on Fee Bill. The Committee on rising reported progress, and obtained leave to sit again on Tuesday evening next, February 15th, to which period the College adjourned.

Adjourned Meeting, February 15th, 1848.

Dr. Jackson, in the chair.

Present, twenty-five members.

The College went into Committee of the Whole for the further consideration of the report of the Special Committee on Fee Bill. On rising the Committee reported the Fee Bill with amendments.

On motion, it was *Resolved*, That the bill as reported by the Committee of the Whole be printed for the examination of the Fellows of the College, and that the final action thereon be postponed until the Stated Meeting in March.

Dr. Meigs presented to the Library a copy of his Memoir on the Reproduction of the Opossum.

Special Meeting, February 21st, 1848.

Dr. Bond, in the chair.

Present, forty-two members.

The Chairman stated that the College had been specially convened, by order of the Vice President, for the purpose of paying the last tribute of respect to its late President, Dr. Thomas T. Hewson, by following his remains to the grave.

On motion, it was *Resolved*, That a committee be appointed to draw up resolutions expressive of the feelings of the Fellows of this College, on the loss they, in common with the medical profession generally, have sustained in the demise of their much esteemed President, and distinguished colleague.

The following Fellows were appointed that Committee:—Drs. C. D. Meigs, Bond, and Condie.

The College, on motion, adjourned to the house of Dr. Hodge, from thence to proceed to the funeral of the deceased.

Special Meeting, March 4th, 1848.

Dr. Bond, in the chair.

Present, thirty members.

The Chairman stated that the College had been specially convened, by order of the Vice President, to pay the last tribute of respect to another of its Fellows, Dr. Jacob Randolph, who, since they had assembled to perform a like mournful duty to the remains of their late President, had, after a short illness, been removed by death from their midst.

On motion, it was *Resolved*, That a committee be appointed to prepare resolutions expressive of the sentiments of the Fellows of this College in reference to the decease of their respected colleague, Dr. Jacob Randolph, and to prepare a letter of condolence to the family of the deceased.

The following Fellows were appointed that Committee:—Drs. Norris, Bache, and Bell.

The College on motion, then adjourned to the residence of the deceased, to attend the funeral.

Stated Meeting, March 7th, 1848.

Dr. Wood, Vice President, in the chair.

Present, thirty-three members.

The committee appointed to prepare resolutions expressive of the feelings of the College on the decease of their late President, Thomas T. Hewson, M. D. reported the following:—

Resolved, That it was with profound regret the College learned the melancholy fact of the decease of their late revered President, Thomas T. Hewson, M. D.

Resolved, That the demise of this gentleman, who was not less distinguished by his attainments in medicine, in literature, and in science generally, than by the amenity of his disposition, the urbanity of his manners, and the uprightness of his entire life, is an event deeply to be deplored by the members of this institution, with which he was connected during forty-six years, and over whose deliberations he presided for the last twelve years.

Resolved, That a Fellow of the College be appointed to prepare a memoir of our late President, to be read before the College.

Resolved, That a committee be appointed to prepare a letter expressive of the condolence of this College with the family of the deceased.

Signed: Charles D. Meigs,
Henry Bond,
D. Francis Condie.

The foregoing resolutions were unanimously adopted.

On motion, it was *Resolved*, That Doctor Franklin Bache be requested to prepare and read before the Fellows of the College at his

earliest convenience a memoir of our late lamented President, Dr. Thomas T. Hewson.

On motion, it was *Resolved*, That Drs. Wood, Meigs, and Bond be appointed a committee to prepare and present on behalf of this College, a letter of condolence to the family of the late Dr. Hewson.

The committee appointed to prepare resolutions expressive of the feelings of the College, upon the loss it has sustained by the death of their esteemed colleague, Dr. Jacob Randolph, presented the following:—

Resolved, That the College of Physicians deeply deplores the loss it has sustained by the demise of its late Fellow, Dr. Jacob Randolph, whose attainments, practical abilities, and worth, placed him in a position of merited eminence in our profession.

Resolved, That the condolence of the College be offered to the family of the deceased in their bereavement, and that a copy of these resolutions be forwarded to them as a mark of the respect in which he was held by his brother practitioners.

Resolved, That a Fellow of the College be appointed to prepare a biographical account of the deceased, to be read before the College and deposited among its archives.

Signed: George W. Norris,
John Bell,
F. Bache.

On motion, it was *Resolved*, That Dr. Norris be requested to prepare a Biographical notice of the late Dr. Randolph to be read before the College.

On motion, the College then proceeded to elect a President to fill the vacancy caused by the death of Dr. Hewson;

When Dr. George B. Wood was unanimously elected.

On motion, the College then proceeded to elect a Vice President, to fill the vacancy caused by the elevation of Dr. Wood to the Presidency;

When Dr. C. D. Meigs was duly elected.

On motion, the College then proceeded to elect a Censor in the place of Dr. Meigs;

When Dr. George W. Norris was unanimously elected.

The following communication from the College of Pharmacy was received and ordered on file:—

At a meeting of the Board of Trustees of the Philadelphia College of Pharmacy, held last evening, I was instructed to acknowledge on behalf of the Board, the receipt of the communication recently addressed it by a committee of the College of Physicians, having reference to the practice pursued by some apothecaries of prescribing in the shops, and desiring the co-operation of our College in the suppression of that evil. The Board have appointed a committee whose duties embrace this subject, and who are engaged in preparing a Code of Pharmaceutical Ethics, which, if adopted by our College, will, it is believed, promote a more general observance of good practice among apothecaries, and will tend to diminish the evils of which your Committee complain.

Respectfully,

Edward Parrish,

Secretary Board of Trustees Philad. College of Pharm.

Dated, February 22, 1848.

Dr. Moore presented and read the Annual Report on Meteorology and Epidemics as follows:—

Since the completion of the present report it has pleased providence to remove by death our worthy colleague, Doctor Thomas Tickell Hewson, who departed this life on the 19th of 2d month, 1848, in the 75th year of his age.

To his assiduous labours in this Committee the College is indebted for the valuable reports they have heretofore received. His attention to the subject of Meteorology and Epidemics, for many years previous to the appointment of the committee, eminently qualified him to take the lead in its reports.

The position he held as President of the College, devolved upon him the duty of nominating the chairman of committees, and thus prevented his accepting the honour his labours entitled him to—of this circumstance the College has been regularly apprised on the presentation of each annual report.

During the period we have been associated together on this and other subjects, particularly that on re-vaccination, (where great labour and care was necessary) it affords me much satisfaction to bear testimony to the urbanity of his disposition; his love for his profession, and his indefatigable exertions in the pursuit of knowledge. He was slow to the admission of reputed facts, and careful in the investigation of truth; he was well read in the ancient works of surgery and medicine, and kept himself well informed in the know-

ledge of the day. Few men were more modest of their acquirements or better deserved the confidence of the profession.

He was engaged in the active duties of his profession about fifty years, and has left behind him a character, both as a man and a physician, worthy the imitation of his professional brethren.

In consideration of the position he occupied in this committee, I have felt bound on the present occasion to bear this small testimony to his worth, leaving for some better qualified individual to perform the duties of the College towards him.

State of the Weather.

January was, for the season, of moderate temperature. Before sunrise the highest degree of heat observed was 50°, and the lowest was 12°. The mean temperature at this period of the day was 30°. In the middle of the day the extremes observed were 63° and 17°, and the mean degree of heat was 37°. For the month the mean temperature was 34°. The greatest range of the thermometer in any day was 20°. On three occasions the degree of heat noted was less in the middle of the day than in the morning. The observations on the course of the wind, were from the north of east, thirteen; from the south of east, five; from the south of west, fifteen; and from the north of west, twenty-nine. On seven days the sky was perfectly clear; during fifteen days, the weather was variable; and for nine days, the sky was covered with clouds. Rain fell on five days, and on the like number there was snow; the greatest depth of which was seven inches. The water collected from the rain and snow when melted, measured 4.320 inches. The range of the barometer was from 29 inches to 30.8 inches; except during the days when the rain and snow fell, the evaporation was great.

February, likewise, was very moderate in point of temperature. The extremes at which the thermometer stood in the morning were 49° and 15°, and the mean degree of heat for this portion of the day was 30°. In the middle of the day the extremes observed were 57° and 25°, and the average temperature was 36°. For the entire month the mean degree of heat was 33°. The greatest diurnal range of the thermometer was 15°, and the lowest was 1°. The mean diurnal range was 6°. Fifteen observations indicated the wind from the north of east; nine from the south of east; six from the south of west; and twenty-six from the north of west. The clear days were six; thirteen days were variable; and the cloudy days were twelve. Rain was noted on five days, and on the like number there was snow; the total indicated by the rain guage was 4.598 inches. The extremes observed in the barometer was 29.3 inches and 30.7 inches. The evaporation did not equal that observed in the preceding month.

March was generally mild, with no severe frosts, though there

were occasionally sudden vicissitudes of temperature. On the 25th, the thermometer rose from 36° to 62°, the wind blowing from the south, with a cloudless sky. On the next day there were both rain and snow, measuring, according to the rain guage, 2.500 inches. The highest degree of heat observed before sunrise was 53°, and the lowest was 25°; the average temperature early in the morning was 35°. At noon the extremes were 62° and 31°. The mean degree of heat in the middle of the day was 44°. For the entire month, the average temperature was 39°. At twelve observations, the wind came from the north of east; at fourteen, from the south of east; at ten, from the south of west; and at twenty-six, from the north of west. Three days were clear, twenty-one variable, and seven cloudy. On the 10th, in the forenoon, we had lightning and thunder; the same phenomena were noted on the 27th. On nine days it rained; on three, there was snow, but not in any appreciable quantity, except on the 27th, when it measured three inches. The rain and melted snow, added to what was stated above, measured 4.862 inches. The greatest elevation of the barometer was 30.7 inches, and the greatest depression was 29.3 inches.

April began with a clear frosty morning, when the thermometer stood at 28° before sunrise, and rose to 42° in the course of the day. In the forenoon, the wind came from the north of west, and in the afternoon, from the south of west; through the whole day the sky was clear. On the succeeding morning there was a light fall of rain, the wind being from the north of west. We had frost again on the morning of the 19th, when the thermometer stood at 31°, the wind coming from the south of east, with a clear sky. The highest temperature observed before sunrise was 61°, and the mean was 44°. In the middle of the day of the 22d, the thermometer rose to 82°, the highest temperature observed during the month. In the corresponding period of the 19th it was down to 41°. The average degree of heat noticed at mid-day was 60°. For the month, the mean temperature was 52°. Five days were clear, twenty-three were variable, two were cloudy, and on five days it rained. The amount of rain did not exceed .585 inches. On the 12th the rain was accompanied by lightning and thunder. The wind, at seven observations was from the north of east, at the like number from the south of east, at twenty-two from the south of west, and at twenty-four from the north of west. The greatest range of the thermometer in the course of one day was 31°, and the mean range between the morning and noontide observations was 16°. The mercury in the barometer was at 30.7 inches on the morning of the 19th, and at mid-day of the 27th and 29th it was at 29.5 inches. The evaporation was very great, except during the short periods when there were light showers.

May is usually the season of abundant refreshing showers and a consequent vigorous vegetation. But owing to the preceding drought

and to the deficiency of rain during the month, vegetation was observed to advance very slowly. The amount of rain collected was .635 inches. Eight days were clear, fourteen were variable, nine were cloudy, and on six days there were some gentle showers. In the morning the highest temperature was 67°, the lowest was 42°, and the mean was 54°. At mid-day, the extremes were 86° and 47°, with a mean of 69°. For the month the average degree of heat was 61°. The greatest diurnal range was 23°, and the mean was 15°. On the 30th, the thermometer stood at 64° before sunrise, the sky clear, and the wind from west south west, but in the middle of the day it fell to 58°, the weather having become cloudy, and the wind blowing from the east of north. The next day we had rain and the thermometer ranged from 53° to 54°. The course of the wind at twenty observations was from the north of east, at nineteen from the south of east, at four from the south of west, and at seven from the north of west. The air was generally very dry. The extremes at which the mercury stood in the barometer were 30.4 inches and 29.5 inches. The former was observed on the mornings of the 4th and 5th, the wind being from the north-west, with a cloudy sky. The latter occurred at mid-day of the 8th, the wind being from the south of east, and the sky perfectly clear.

June was exceedingly variable in respect to temperature, and to the aspect of the sky. In the morning, the highest temperature observed was 74°, and the lowest was 52°. The mean temperature before sunrise was 63°. At mid-day, the extremes were 91° and 65°, with a mean of 78°. The average degree of heat for the month was 70°. The greatest diurnal range of the thermometer was 22°, and the mean was 15°. Three days were clear, twenty-three were variable, three were cloudy, and on ten days there was more or less rain, measuring in all 3.071 inches. In the intervals between the showers, the evaporation was very great, and the vegetation suffered. The observations of the wind were five from the north of east, seven from the south of east, sixteen from the south of west, and thirty-two from the north of west. Lightning and thunder were observed on the 14th. The extremes noted in the barometer were 30.2 inches and 29.5 inches.

July. Before sunrise the highest temperature observed was 78°, this was on the 20th. At noon of the same day the thermometer rose to 92°. This proved the warmest day experienced during the month. The lowest degree of heat observed in the morning was 56°, and the mean temperature observed in this portion of the day was 69°. On the 30th, at 3 P. M. the thermometer stood at 69°, the lowest degree at which it was observed in the middle of the day. The mean temperature in the afternoon or the warmest part of the day was 83°. Between the morning and the afternoon the mean degree of heat was 70°. The greatest diurnal range of the thermometer was 22°, and the mean was 14°. The extremes obser-

ved in the barometer were 30.2 inches, and 29.8 inches. Two days were clear, twenty-five were variable, four were cloudy. On nine days we had rain, which measured 3.075 inches. The wind was from the north-east at eleven observations, from the south of east at fourteen, from the south of west at twenty-two, and from the north of west at fifteen. Lightning and thunder accompanied the rain which fell on the 13th, 20th, 25th and 26th.

August. The highest temperature before sunrise was 74°. This happened on the 11th, the wind coming from the south-south-west, with broken clouds. On the 6th the wind being from west and north, the thermometer was down to 59°. On the 20th and 21st the like temperature was noted, the wind being from the south of west and the sky clear. On the 26th with a clear sky and the wind from the north of east, the same degree of heat was observed.— During the warmest part of the day the thermometer rose on four occasions to 85°, the wind being from the south on three of the observations, and at one the wind being from the north. There were only two cloudless days. Twenty-four days presented a variable sky. Five days were cloudy. Rain was observed on eight days. The quantity measured 3.262 inches. The mean temperature in the morning was 67°, at mid-day 79°, and for the month 73°. The greatest diurnal range was 20° and the mean 12°. At thirteen observations the wind was from the north of east, at fourteen from the south of east, at fifteen from the south of west, and at twenty from the north of west. The mercury in the barometer varied from 29.7 inches to 30.3 inches.

September was remarkable for the high temperature observed in the early part of the month. During the first nine days the mean degree of heat before sunrise was 71°, and the extremes were 76° and 62°. At noon during the same period the thermometer rose on two occasions, to 86°, while the lowest degree observed was 75°. The mean temperature at mid-day was 82°. The prevailing winds were from the south, and the sky was variable. On the 2d there was a light shower accompanied by lightning and thunder. On the morning of the 8th there was a light shower. On the 9th there was a heavy fall of rain with lightning and thunder. After this period the weather became cooler, the mean temperature in the morning not exceeding 57°, while the extremes were 50° and 64°. In the middle of the day the extremes indicated by the thermometer were 73° and 58°. For the month the mean degree of heat was 68°. The greatest diurnal variation was 19°, and the average was 12°. The range of the mercury in the barometer was from 30.3 inches to 29.7 inches. The observations of the winds were from the north of east seventeen, from the south of east ten, from the south of west likewise ten, and from the north of west, twenty-three. The clear days were four, the variable were eighteen, the cloudy were eight, and rain was noted on ten, in quantity amounting to 7.405 inches,

far exceeding what has been usually observed in this month, and only surpassed by the rain which fell in September, 1838, which measured 9.490 inches.

October presented the mild and genial temperature which constitutes the charm of the autumn of this happy portion of the globe. To this was added a moderate degree of moisture, which proved particularly favorable to the growth and perfection of many of the esculent plants. The highest temperature observed in the morning was 65°, the wind being from the south of east with rains. The lowest temperature observed was on the 27th, 28th and 29th, when the thermometer was down to 34°, in the central and protected portions of the city. In exposed positions and in the neighboring country ice was seen. In the middle of the day, on the first of the month, the thermometer rose to 74°, and on the 27th, in the corresponding portion of the day it was down to 43°. The mean temperature for the month was 54°. The greatest diurnal range was 26°, and the mean was 10°. The mercury in the barometer rose on the 29th to 30.9 inches, and on the 9th it was down to 29.6 inches. Fifteen observations indicated the wind from the north of east, eleven from the south of east, the like number from the south of west, and twenty-three from the north of west. Five days were clear, twenty-three were variable, three were cloudy, and on four days there was rain which measured 2.950 inches.

November presented, during the earlier portion of the month, a longer continuation of warm and genial weather than has been noticed for a series of more than twenty years. The degree of cold observed at the close of the month exceeded any that has been recorded at the same season for the like term of years. Until the 27th of the month no ice was seen in the central portions of the city. The lowest temperature observed before sunrise was 36°, and the thermometer on one occasion, the 24th, was not below 64° ; at which period the wind was from the south of west, with rain. On the last day of the month, the temperature in the morning was down to 16°, with the wind from the north of west and a clear sky. The mean temperature before sunrise was 49°. During the middle of the day the mean temperature was 54°. On the 9th the thermometer rose to 75°, and on the 29th and 30th the temperature observed was 27°.— The greatest diurnal range of the thermometer was 19°, this happened on the 9th, with the wind from south of west and dense fog ; on the clearing away of the fog there were light tufted clouds and a light sprinkling of rain in the evening. Thirty-one observations indicated the wind from the north of west. Six days were without a cloud, eighteen were variable, and six were cloudy. There were six days in which some rain fell, the quantity collected measured 2.789 inches. The mercury in the barometer ranged from 29.7 inches to 30.9. At mid-day of the 27th the Dewpoint was below zero.

December commenced with a cold frosty morning; but before the day had closed the rain set in and continued during the two succeeding days, fore-shadowing the vicissitudes that characterized the month. On the morning of the eleventh, the temperature indicated by the thermometer was 64°. On the 27th it was down to 15°.— The mean temperature before sunrise was 38°. In the middle of the day of the 14th the thermometer rose to 70°, and on the 27th was down to 23°. The latter proved the coldest day experienced during the month. The mean temperature at mid-day was 44°.— The average degree of heat was 41°. The greatest diurnal range of the thermometer was 17°. On the 21st and 25th the mercury was stationary. On the 3d, the 11th, and the 21st the thermometer fell 7°, 5°, and 3°, in the order expressed. There was only one clear day. Nineteen days were variable. The cloudy days amounted to nine. The fog commenced on the morning of the 29th, became thicker on the succeeding day, and was so dense at nine A. M. of the 31st as to prevent objects being discerned across our narrowest streets. In addition to the rainy days mentioned above, there were six, on two of which the rain was mixed with hail. Snow was observed to fall on five days. According to the rain guage, the water collected from the rain, and the snow and hail when melted, measured 5.735 inches. At eight observations, the wind was from the north of east, at eleven from the south of east, at twenty-two from the south of west, and at twenty-one it blew from the north of west. The barometer ranged one inch, the extremes having been 30.7 inches, and 29.7 inches.

SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR 1847.

Year 1847.	TEMPERATURE.			RANGE		DEW POINT.			BAROMETER.		WIND.				WEATHER.					RAIN AND MELTED SNOW IN INCHES.
											No. obs. in which wind blew.				Days that were			Days of		
	Highest.	Lowest.	Mean.	Highest.	Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	North of East.	South of East.	South of West.	North of West.	Clear.	Variable.	Cloudy.	Rain.	Snow.	
January...	63	12	34	20	6	54		24	30.8	29.3	13	5	15	29	7	15	9	5	5	4.329
February..	37	15	33	15	10	44	7	25	30.7	29.3	15	9	6	26	3	13	12	5	5	4.595
March	62	25	39	26	9	54	11	28	30.7	29.3	12	14	10	26	3	21	7	9	3	4.862
April	82	28	52	31	16	57	15	36	30.7	29.5	7	7	22	24	5	24	2	7	—	.585
May.....	87	42	62	27	15	65	23	46	30.4	29.5	20	19	4	7	8	14	9	7	—	1.635
June.....	92	52	76	22	14	75	35	37	30.2	29.5	5	7	16	32	2	25	4	10	—	3.071
July.....	92	56	76	22	14	75	44	64	30.2	29.7	11	14	22	15	2	25	4	9	—	3.075
August ...	85	59	73	20	12	75	50	63	30.3	29.7	13	14	15	20	2	24	5	8	—	3.262
September.	86	50	68	19	12	74	41	58	30.3	29.7	17	10	10	23	4	18	8	10	—	7.415
October ..	74	34	55	21	19	66	18	43	30.9	29.6	15	11	11	23	5	23	3	4	—	2.950
November.	75	16	51	10	5	65		39	30.9	29.7	9	8	12	31	6	18	6 fog	6	—	2.789
December .	70	15	41	17	6	63	5	33	30.7	29.7	8	11	22	21	1	19	9 3	9	5	5.735
Total ..			51		13						145	129	165	277	48	237	78	89	18	44.303

Prevailing Diseases.

In the concluding portion of the report on Meteorology and Epidemics for 1846, a short notice was given of the Catarrh which prevailed to an unusual degree in December of that year.—The reading of the report elicited some remarks, from which it may be inferred as the opinion of the majority of the members of the College who took part in the discussion, that the disease was occasioned by the changes in the condition of the atmosphere observable during the winter of our climate, and that its prevalence could not be attributed to a specific or contagious influence. This view is rendered the more probable, from the fact that many persons were affected with the disease during the succeeding months, including the month of April.

In addition to the sketch given in that report, it may be stated, that, as early as the month of January, many persons labouring under the ordinary symptoms of catarrh, were affected with diarrhœa, either in the early stage, or in the decline of the disease. To a looseness, and other complaints of the bowels, there has been an unusual susceptibility throughout the year; of which a fuller notice will be given in the progress of this report.

From the opinion early imbibed, and generally current with the mass of mankind, there is a disposition to ascribe the diseases of the respiratory system to vicissitudes of temperature, especially when combined with moisture. The cutaneous surface can be, and is, most generally, protected against atmospheric impressions, in the lower orders of animals by the coverings provided by nature, and in man by the clothing which his ingenuity has furnished. At every inspiration, the air passes directly into the lungs, and impresses its temperature and the influence of its component parts on the delicate structure with which it comes in contact. Still, it will be found, on a careful examination of the more important diseases of the lungs, that the prevalence of these, the severity of the attack, and the degree of mortality are often independent of the state of the weather. In densely inhabited districts, with a floating population, it is not easy to determine with any degree of precision the numbers that may be affected with any particular disease, in any given season. Some approximation to the truth, however, may be obtained by resorting to the list of interments, in which the character of the fatal malady is recorded. If acute in its type, the connexion with atmospheric influences may be observed.

Of the various portions of the respiratory system, the larynx, from its position, first invites our attention. The air during the act of inspiration, reaches this delicate and sensitive apparatus very little altered in any of its sensible qualities. The complaints incident to this organ are of a very formidable character; yet

acute laryngitis appears to be a disease of rare occurrence, for the instances of a fatal termination are exceedingly few. In January, the death of one person, a child, is ascribed to inflammation of the larynx. The record was made in the first week of the month.— From that period, until after the middle of April, no record of the disease is to be found in the list of interments. One death is noticed in the third week, and another in the fourth week of the month.— Inflammation of the larynx proved fatal to one individual, an adult, in May; the record of this death was made in the third week of the month. In June an adult and a child are stated to have died of this disease. In the first week in July, the death of one child is referred to this source. From this period, until the last week in November, the disease is not noticed in the weekly returns. The record then made, was of a child. One fatal case was recorded in December.

Immediately below the larynx is seated the trachea, the acute diseases of which are more frequent, and by which many children of a tender age are untimely cut off. In the list of interments published by the Board of Health, the popular term croup is employed to designate the disease which in the beginning is generally confined to the larynx and trachea, though in its further progress, it often extends to the bronchial tubes distributed through the lungs. Here the march of death has been very different from what has been noticed in the simple inflammation of the larynx. Only one death from croup was recorded in January. In February the number amounted to fourteen. A gradual decline was observed during the two succeeding months, there having been twelve deaths from the disease in March, and eight in the month of April. Again in May the number of deaths had risen to fourteen. In June there was a remarkable reduction in the number of fatal cases, four only having been recorded in the month. No death from this source is to be found in the weekly bills of mortality for July. Two deaths from croup are recorded in August. In September the number was increased to six. In October the list of deaths from this malady, had swelled to thirteen.— The like number, one adult, and twelve children, are recorded to have died of croup in November. The disease was fatal to thirteen children during the month of December.

Each successive portion of the respiratory system may have its independent morbid affections, and the bronchi or the two tubes given off from the trachea, have been observed to be the seat of specific disease. The term bronchitis, or inflammation of the bronchi, as employed by the majority of the medical writers of the present day, covers a larger field, embracing the smaller tubes distributed through the lungs, until their final termination is traced into the very air-cells. In January inflammation of the bronchi is reported to have proved fatal to thirteen persons, ten of whom had not attained the age of maturity. Seven children and two adults

appear to have fallen victims to the disease in February. In March, the death of six children, and of three adults is referred to the same source. In April, ten children and three adults were carried off by inflammation of the bronchi. In May, we find the like number recorded, and in the same proportion, ten children and three adults. In June, the report corresponded in all these particulars. The largest mortality from inflammation of the bronchi was in July, the death of ten children, and of five adults having been referred to this source. In August, three children and the like number of adults, appear to have been cut off by this malady. In September, some alteration occurred in the proportion of the adults, and of the children whose death was occasioned by inflammation of the bronchi; three adults and two children are the numbers recorded. Five children and one adult, are stated to have been carried off by the disease in the month of October. In November this malady proved fatal to four adults, and to five children. In December, the deaths referred to inflammation of the bronchi, amounted to thirteen, only two occurred in persons arrived at the age of maturity. The death of the two adults and of eight children was recorded in the first and second week in the month.

The parenchyma or intimate structure of the lungs, is likewise often the seat of a severe inflammation that frequently leads to a fatal termination. The mortality from this source, during the year, has been greater than from any other acute morbid affection incident to the respiratory system. In January, the death of eleven adults, and of twelve children has been referred to inflammation of the lungs. In February, there was an increase in the number of fatal cases, nineteen adults, and thirteen children, having been reported as falling victims to this disease. In March the mortality rose to thirty-seven, the largest observed within the period of any month, December excepted; the increase having been particularly noted among children, of whom eighteen are reported to have died of inflammation of the lungs, while among adults, the deaths were, as in the preceding month, nineteen. In April, the number of fatal cases was reduced to twenty-two; according to the list of interments, fifteen were children, and seven were adults. In May the mortality had again increased to nineteen among children, and to eleven among persons of mature age. There was a notable reduction of the numbers reported to have died of inflammation of the lungs in June; six adults, and seven children being the numbers recorded. Three adults and the like number of children appear to have been cut off by the disease in July. In August, there was an increased mortality among children, the death of six persons of this age having been referred to this source, among those more advanced in life, the fatal cases were only three. In September, four adults and five children died of inflammation of the lungs. The death of seven children and of eight grown persons, by this disease, was

recorded in the month of October. In November, the mortality from this source, appears not to have exceeded thirteen, the children having been nine, and the adults four. Thirteen adults and twenty-six children, are reported as having died of inflammation of the lungs in the month of December. This is the largest number recorded in any month embraced in the present report.

Inflammation of the pleura, independent of any complication of the other pulmonary tissues, is of rare occurrence; accordingly we find in the bills of mortality, the deaths to have been very few. One grown person was reported to have died of inflammation of the pleura in February. From this period, no fatal case was recorded, until the month of June, when the death of one child was referred to this source. In July, the disease was reported as causing the death of two adults. The death of one child was imputed to inflammation of the pleura in the month of August. One adult died of the disease in September. The last and only additional record was in November, when the death of one individual, an adult, was referred to inflammation of the pleura.

From general observation, it has grown into a common saying, that the inclement and boisterous season of March, is particularly fatal to persons affected with pulmonary consumption. Without wishing to controvert the correctness of the adage, we have been induced to present the facts drawn from the record of the interments published in this city for 1847. They perhaps constitute an accidental exception to a general rule, yet they will serve to draw a stricter attention to the subject, and may elicit information valuable in the management of the disease. The mortality from pulmonary consumption amounted in January, to seventy-four. In the succeeding month, consisting of fewer days, the deaths did not exceed sixty-three. In March, the number of fatal cases was seventy-eight. In April, eighty-three persons were reported to have died of consumption. In May, there was but a shade of difference, as the deaths recorded, amounted to eighty-two. The greatest mortality observed, was in June, when the death of ninety-two persons was referred to this source. In the succeeding months of July, August, September and October, there was a sensible decline in the number of fatal cases; sixty, sixty-four, fifty-one, and forty-six in the order of those months. In November, fifty-nine deaths occurred from consumption. In December, seventy-nine persons were cut off by the disease. The sum will be found to amount to eight hundred and thirty-one, while the deaths from all diseases recorded in the weekly reports, were seven thousand and fifty-nine.

Hooping-cough comes within the scope of this inquiry. The subjects in whom the disease is most generally observed, have not attained that strength of constitution, and that force of habit deemed essential to ward off the baneful influence of inclement seasons. From the sensitiveness of the nervous system, and from the prone-

ness of the mucous membranes to take on disease, in persons of a tender age, the more marked influence of the varying conditions of the air which is respired, might be naturally anticipated. The greatest mortality from hooping-cough, was recorded in July, when the weather was warm and dry, with an unusual predominance of the wind from the south. In February and March, only four deaths were noticed under the head of hooping-cough, though the season abounded in cold, raw, and unpleasant weather, with snow and rain. Four deaths were likewise recorded in each of the months of October and November, when there was a remarkable continuance of a mild agreeable temperature, accompanied by a moderate proportion of rain and moisture. These are the principal notices exhibiting the relation of the seasons, and the mortality recorded from hooping-cough.

In this review, the idiopathic diseases have been selected, if to these be added the consequent morbid affections causing death, it will appear that the two most fatal months, were March and May, and that the fewest deaths from pulmonary complaints, were in July and August.

Diarrhœa in its association with catarrh, as observed in January, has been noticed in the sketch given of the latter disease. In February, it occurred as an independent and idiopathic complaint. From that period it has continued to affect numbers, until the very close of the year. Though in general, a mild and tractable disease, deaths from this source have been recorded in every month. In July, the largest mortality was observed, the disease having proved fatal to twenty-four children, and to seventeen persons of more mature age. In the former, it was probably connected with the process of dentition, and in adults, it may have been associated with some previous, and severe affection of the bowels. This opinion, it must be acknowledged, is rather gratuitous, as the opportunity of observing the progress of the fatal cases, did not present.

The purer form of the disease could, in most instances, be traced to exposure to cold, and to indiscretions in diet. The confining of the person to a warm chamber, or still more effectually to the bed, and thus determining to the surface of the body, appeared to insure the purpose of relief, where the disease was brought on by cold. The mild diaphoretics, especially the compound powder of ipecacuanha, were found particularly serviceable on these occasions. Where the disease was supposed to originate from indiscretions in diet, the removal of the offending cause, was solicited by emetics, and by mild aperients, as castor oil, to which some preparation of opium was often added, with the view of allaying pain. In the majority of the cases of diarrhœa, that came under notice, even where the disease could not be traced to indiscretions in diet, the complaint appeared to be aggravated by the exhibition of astringents and the preparations of chalk. Strict attention to the diet,

selecting the mild farinaceous and amalycious decoctions, seemed to be particularly indicated, where the character of the food was suspected as the cause of the disease.

In every portion of the year we are presented with many of the causes leading to the production of inflammation of the alimentary canal. It is under the title of inflammation of the stomach and bowels, that the disease is recorded in the list of interments published by the Board of Health. Many cases of the disease were observed in March, and the number of deaths is stated to have been sixteen. In May, the complaint was of more frequent occurrence, and caused the death of some very estimable citizens, which spread a mournful gloom through the city. In July, the disease appears to have been still more fatal, destroying no less than twenty-six persons; of whom, ten were adults, and sixteen were of a more tender age. During the succeeding month there was a very perceptible decline in the mortality from this disease, the death of twelve adults and of nine children having been recorded, as caused by inflammation of the stomach and bowels. After this period, the number of fatal cases had sensibly diminished, and the further recital of the deaths may be dispensed with without detracting from the interest of the report.

The attack generally took place towards the close of the day, or during the night, when the patient was seized with severe pain in his bowels, accompanied by frequent vomiting. The matter first ejected, consisted, for the most part, of the articles that had been taken at the last meal. After the discharge of the undigested food, if the sickness at stomach continued, more or less bile was thrown up. In this condition the sufferer often had recourse to some preparation of opium, in combination with castor oil, or other aperient medicine. If the morning did not bring relief, medical aid was desired at an early hour. For the most part, the pain experienced was referred to the hypogastrium, or to one or other of the iliac regions. Some fulness, and tenderness on pressure, were observable in the affected region; and diminished resonance was perceived on percussion. The alvine discharges, solicited perhaps by medicine, were generally feculent, though occasionally with the addition of mucus, either blended with, or distinct from the feculent matter. Whether from the means that had been already employed, or from the character of the disease, constipation was rarely observed. The nausea and vomiting excited attention, the thirst was likewise urgent. The urine was often retained for twelve, and even twenty-four hours. When the evacuation of the bladder was induced, the patient experienced great heat and pain in the discharge. The fluid was scanty, high coloured, and occasionally affording a pink coloured deposit. The temperature of the skin was not always sensibly increased, yet in the majority, this symptom of fever was very fre-

quently present. The pulse was generally accelerated, and its volume and force augmented.

In the early stage, comprehending a period of three or four days, great benefit was derived from blood-letting, carried to the extent of sixteen ounces or more in persons of a robust and plethoric habit, in whom it was even necessary to repeat the operation, but never beyond the second bleeding. In adults, the opening of a vein was always preferred as making a more prompt and fuller impression on the system. In children, the application of leeches to the abdomen was often more practicable, and therefore more frequently resorted to. Opiates, combined with the mild chloride of mercury, administered in small doses, and repeated at the interval of three hours, contributed to allay the irritability of the stomach and to assuage the pain—important indications in the treatment of the disease. If the bowels were not moved, the occasional interposition of mild aperients was deemed expedient, or recourse was had to large injections of tepid water, always at command, which, besides soliciting a discharge from the bowels, possess the additional advantage of acting as a fotus to the rectum and the neighbouring irritable bladder, and thus procuring the free discharge of the contents of the latter viscus. Fomentations applied to the lower part of the abdomen, and to the whole of the perinæum, seemed greatly to mitigate the sufferings of the sick. When these means had been neglected, and the disease was protracted beyond the fifth day, it was often necessary to apply blisters. The part where the greatest pain and tenderness were observed, was selected for this purpose. After the blister had drawn, the application of a light poultice, over which was placed a piece of varnished silk, so as to prevent evaporation, proved very agreeable to the feelings of the patient. Cooling drinks and morsels of ice were found to be exceedingly grateful; the latter allaying the thirst without irritating the stomach. A light diet was enjoined, until every sign of inflammation might be presumed to have been removed.

This sketch is the result of, confessedly, a very limited experience, but it is the faithful record of what came under immediate observation.

The lists of interments, manifest the presence of dysentery in every season of the year. The greater prevalence of the disease has been more especially observed during the months of July and August. Numerically, the deaths from this source, have exceeded the records of former years, though compared with the general mortality, the proportion was greater in 1838. Children were more generally affected than persons who had arrived at mature age; even those in the decline of life were not wholly exempt.

The invasion was usually, though not always, marked by a sense of coldness pervading the lower limbs. To this, succeeded headache, nausea, offensive eructations, vomiting of undigested food, or

of fluid, more or less tinged with green or yellow bile, and of an exceedingly bitter and disagreeable taste. The patient generally complained of severe pain in the region of the navel, attended by frequent and urgent desire to go to stool; the matter discharged was thin and extremely offensive. The hoped for relief did not follow, and the patient was not easily prevailed on to rise from the seat, but remained perseveringly making ineffectual efforts, complaining at the time of excruciating pain just above the pubes, and in the lower part of the back. In this state, the sufferer, of his own accord, or at the suggestion of a friend, had recourse to some mild aperients, and to the preparation of opium, if at hand. Too frequently those in the humbler walks of life resorted to spirits, undiluted or mixed with a little water, the baneful effect of which was observed in the subsequent aggravation of the symptoms.

When visited and examined by the medical attendant, there was usually some heat of skin, and acceleration of pulse. In adults, the pulsations at the wrist were observed to vary from 60 to 100 in the minute. In some instances, at a later stage of the disease, 120 beats have been counted in this portion of time. The tongue was furred. The patient complained of thirst, and upon swallowing even the blandest fluid, was often seized with vomiting. Some tension and tenderness were perceived in the lower part of the abdomen, most frequently in the hypogastric and iliac regions. Severe and excruciating pain preceded the patient's having a stool. In some instances there was no cessation of the pain, or the intervals were so short as to afford the sufferer little or no respite. The dejections often consisted of a thin yellow fluid with floating filaments of tenacious mucus, there being no appearance of the ordinary stercoraceous matter; sometimes not a trace of any thing solid could be detected, and the stool resembled the mere washings of flesh; on other occasions, fluid and coagulated blood were seen in the vessel, distributed in streaks or diffused through the mass discharged from the bowels. In the progress of the disease, the stools underwent various changes, sometimes assuming the appearance of jelly, more or less consistent, and in colour presenting all the shades from orange to the dark bottle green. The consistence and colour often excited the delusive hope of an immediate solution of the disease. When the complaint was severe, and had continued for some days, small masses of a white caseous matter were frequently observed floating in the yellow fluid which had come from the patient. In size, they resembled peas, or the small beans employed in making soup. Upon a very attentive examination there was no appearance of the scybalæ, so generally noticed by medical writers, and to which so much importance has been attached in the history of the disease. The irritation in the lower portion of the rectum was great; and the long continued efforts at stool brought on a protrusion of the gut. Independent of this latter circumstance, from mere contiguity,

the irritation was propagated to the neck of the bladder and to the membranous portion of the urethra. The consequent pain and difficulty in voiding the urine, added greatly to the patient's distress. The urine voided was scanty and high coloured. In some cases the secretion was so diminished, that the bladder was not distended, though there had been no discharge of urine for the period of twenty-four hours. Authors mention that days have elapsed without a drop of urine having been discharged, but so long a retention has never come within our observation. Pain extending along the inferior extremities has been already noticed as one of the symptoms accruing on the invasion of the disease. In the more advanced stages the patients were frequently seized with severe cramps, usually in the calf of the leg.

In the acute form of this complaint, and where no little solicitude was felt respecting the event, a favourable termination took place as early as the fifth day, the stools having become feculent, and all the febrile symptoms having subsided. Perhaps from indiscretions in diet, the disease has been protracted, even until the close of the third week. In the majority of the cases convalescence was established in the course of the second week. The record of only one fatal case has been preserved; in this instance death took place on the completion of the eighth day. These remarks apply particularly to dysentery as it was observed in persons who had arrived at mature age. In infants, the disease being complicated with the disturbance of the system, dependent on the process of dentition, the specific character was not so clearly marked, and the duration not so easily defined.

Writers have considered the emanations from stagnant pools, and from wet and marshy grounds, as the frequent cause of dysentery. The city of Philadelphia covers an area extending from the Delaware, westward, to the Schuylkill, and from Cedar street, northward, to Vine street. Within these limits, there are many stagnant pools, and some pieces of low, wet ground, lying in the portion of the city west of Broad street. This street constitutes a dividing line separating the city into an eastern or western portion or district; Chestnut street, extending from the Delaware to the Schuylkill, has been conveniently selected for a further division, constituting in all, four districts, distinguished as north-east, and south-east, bordering on the Delaware, and south-west, and north-west, bordering on the Schuylkill. According to this division are registered the patients who received medical aid from the Dispensary. On the books of that Institution, during the months of July, August, and September, there were recorded one hundred and twenty patients, residing in the north-east district, twelve of whom were affected with dysentery. From the south-east district, two hundred and one patients were admitted to the benefits of the Institution; of this number thirty are recorded as suffering from dysentery. The patients residing in the

south-western district were two hundred and fifty-one; of these, thirty-three are recorded as labouring under dysentery. Of one hundred and fifty patients residing in the north-western district, nineteen were attacked with dysentery. The proportional difference will not favour the opinion that, during the late dysenteric season, the disease was caused by the miasmata emanating from the ponds in the immediate neighbourhood of the habitations of the sick.

The milder forms of dysentery may pass away, and health be restored by the recuperative powers of the system; it will however be prudent to assist the process by the avoidance of every cause likely to irritate the bowels; for this purpose, rest and a bland diet may be sufficient. It is in the severer forms of the disease that the opportunity is afforded of duly appreciating the influence of our remedies. In the early stage, when thirst, heat of skin, and activity of pulse are observed, few practitioners would decline to take away blood. At this period the remedy will avail much in mitigating the sufferings of the patient. It has been often observed promptly to allay pain, and to induce a calm of more than an hour in those who previously had been harassed every fifteen or twenty minutes, by the distressing and urgent calls to rise from the bed. Where the age of the patient would permit, the opening of a vein has been preferred as being the most prompt in its effects, and the least likely to be interrupted by those calls which constitute the distressing feature in the disease. It has however been gratifying to observe, that the sick, who were subjected to the more tedious process of leeching, have remained undisturbed through the whole time spent in the operation, and have obtained some respite after the leeches had been removed.

The sickness at stomach, and the vomiting of undigested food and bile, have naturally suggested the use of emetics. Of this class of remedies, the preparations of antimony have been strongly recommended, not only as clearing the stomach of all offending matters, but as possessing the power of exciting perspiration. An additional advantage has been supposed to arise from a portion of the mineral passing into the intestinal tube, thus procuring free and natural stools. By removing sordes from the stomach, they may aid in taking away a source of irritation, the importance of removing which will be readily acknowledged; and if the further effects ascribed to these preparations, were generally experienced there ought to be no hesitation in resorting to them. A careful examination of the notes in our possession, affords no evidence that the remedy exerted any direct influence in lessening pain, or in diminishing the frequency of the stools. Besides the occasional exhibition of this mineral, trials have been made with ipecacuanha, so highly extolled by Akenside, of the sulphate of zinc, as directed by Moseley, and of the muriate of sodium, lately brought into notice by Stevens.

Where no immediate benefit was derived from the exhibition of these articles, the further administration has generally proved exceedingly disgusting to the patients.

The irritability of the stomach, so often observed in the incipient stage of dysentery, if not relieved by the measures already proposed, will necessarily require attention, as it precludes the administration of many of the means usually recommended in the treatment of the disease. Small and repeated doses of the mild chloride of mercury have generally fulfilled this indication. Ulterior benefit may be likewise expected from the direct action of the remedy on the bowels.

The stomach being composed, and a free bleeding having been practised according to the age and constitution of the patient, other measures will be required with the view of insuring repose, and bringing the disease to a favourable termination.

The frequent and urgent desire to go to stool, the incessant straining, and the sensation, that if a free evacuation could be procured, relief would be obtained, has led to the administration of those medicines which provoke a discharge from the bowels. In the opinion of many writers, this purpose will be accomplished by selecting the milder articles of this class, as castor oil and the neutral salts, known to possess aperient powers; rhubarb, jalap, and senna have had their advocates among men of high authority in medicine; on the other hand, they have been as earnestly condemned by physicians of large experience. These remedies, repeated day after day, from their bulk or their nauseous taste, soon become very irksome and loathsome to the patient. Where this plan of treatment has been adopted, it has been found necessary to vary the article, in the hope that the object might be obtained by the selection of what had not hitherto been tried in the case. The conclusion may not be sustained by general experience, yet a sedulous observation at the bedside, has led to the belief that the prepossession in favour of treating dysentery by means of cathartics, has originated in the supposed existence of scybalæ, which must be removed in order to afford relief. Under the impression that mechanical obstruction is rarely present in the disease, the practice of prescribing a class of remedies, which act by irritating the bowels, has not been pursued, but recourse has been had to those means which are calculated to allay pain, procure sleep, and promote perspiration. The combination of opium and ipecacuanha with the addition of the nitrate of potass, or the sulphate of potass has appeared to fulfil these indications. In the opinion of a distinguished writer on the materia medica, the mild chloride of mercury acts as an adjuvant, and ensures, with more certainty, the effect proposed. The dose preferred for an adult has been two grains of the compound powder with one grain of the mercurial, administered every two or three hours. In the evening, double or triple the quantity has been prescribed, in hopes that a

longer truce might be obtained. As auxiliary, a warm fomentation or fotus may be applied so as to cover the abdomen below the navel, and to extend between the thighs, comprehending the whole of the perinæum. Exception to these measures has been often made on account of the coldness resulting from evaporation, and the difficulty of retaining them properly applied. For these reasons the preference has been given to the embrocation with camphorated liniment, to which a third part of the tincture of opium has been added. A portion of carded cotton, of sufficient dimensions to cover the parts just described, will prevent the abrasion of the liniment, and may be easily retained by a broad band passed round the body. The sufferings of the patient have been often greatly relieved by administering per anum two ounces of any mild liquid, as milk, flaxseed tea, or mucilages, with forty drops of the tincture of opium. The above remedies have been prescribed for adults; in younger persons, doses must be reduced in proportion to the age and constitution of the individual.

The patient may continue to be harassed with tormina and tenesmus, without any perceptible improvement in the character of the discharges, still the same measures may generally be persisted in with the prospect of ultimate relief. Sometimes a change in the form, or the substitution of some article of analogous properties may be required. As a vehicle, the syrup of Tolu has been selected on account of its agreeable flavour, well suited to cover the bitter taste of the opium; it completely suspends the heavier articles, and possesses the additional advantage of exerting a beneficial influence on the mucous surface of the intestines.

The acetate of lead and the sulphate of zinc, given in combination with opium, have been highly recommended, and from the minuteness of the dose required can be readily swallowed by the sick. From its nauseous taste, zinc is most conveniently administered in the form of pill. The preparation of lead is free from this objection, and is by no means offensive to children. Contrary to the expectations entertained, the acetate of lead has not tended so effectually to correct the irritable condition of the stomach, as the mild chloride of mercury given in minute doses. In a severe and obstinate case of dysentery, the pain was relieved and the healthy character of the stools restored by the combination of the sulphate of zinc, camphor, and the extract of hyoscyamus, when other means had failed.

Great benefit has been observed to follow the application of a blister to the abdomen, the period selected has been when the heat of the skin and the activity of the pulse had subsided, and never earlier than the second week. To what stage of the disease this severe counter-irritant is especially adapted, sufficient attention has not been paid. Of those respected as of the highest authority in medicine, some have resorted to the application of blisters in the

most active state of inflammation, while others have contended that the remedy is contraindicated until the force of the circulation and the heat of the surface of the body were rather on the decline. On several occasions, the happy influence of this remedy has been conspicuous; a mitigation of the pain, and a calm and refreshing sleep have followed the operation, and the discharges from the bowels have presented the natural feculent character.

During the three summer months, when the cholera infantum prevailed, the fatal cases recorded amounted to three hundred and eighty-eight; for the same period the number of deaths, including all diseases, appears to have been two thousand four hundred and twenty. The number of children who fell victims to the disease has exceeded that recorded in any former year, though the proportional mortality has not equalled what was observed in 1836. Within the year there has been a great increase in the population of the city and surrounding districts. The poor and destitute Irish have sought an asylum among us. While on board ship they were subjected to the severest privations, no attention was paid to personal cleanliness, no change was often made in their clothing during the passage. They landed feeble and exhausted, and suffered much from a temperature to which they were in no degree habituated. The individuals who engaged as domestics in our houses were observed to be oppressed with the heat and to be incapable of the exertions incident to their occupation. They were fatigued by merely ascending the stairs, and were often compelled to halt by reason of the shortness of breath. A sponginess of the gums and a slight intumescence of the limbs was noticed in these unfortunate strangers. This condition was most speedily relieved by the liberal use of ripe and ascescent fruit. The restoration of health was evidently protracted by indulgence in gross animal food to which they were too frequently tempted and invited. Those who brought families were necessarily crowded into close and ill-ventilated apartments. The children of tender age, whose system was not calculated to endure the influences of excessive heat, combined with the emanations from filth of every kind, probably suffered from these causes, so fruitful in the production of cholera in children during the period of the first dentition.

The ravages from scarlatina have been very great, the number of fatal cases having amounted to three hundred and thirty-seven. The greatest mortality occurred in March; during this month the deaths recorded were forty-two. In November, the deaths from scarlatina were reduced to twelve, the smallest number observed in any month. The most striking feature in the epidemic was the unusual determination to the head. This was often noticed as ushering in the disease in children of a robust and plethoric habit. They were seized with convulsions, followed by coma. The administration of emetics, the abstraction of blood, and the application

of blisters, made no sensible impression on the agonizing condition of the little sufferers. In some cases where from the character of the symptoms, no untoward issue was apprehended, convulsions came on at an advanced period of the disease, and when the eruption was on the decline.

A purulent discharge from the meatus auditorius was occasionally observed before there was any manifest efflorescence on the skin, more frequently it occurred as one of the sequelæ of the disease. Various remedies were employed with the view of correcting the discharge; of these, the nitric acid largely diluted with water seemed to act most favourably in restoring the normal secretion. The degree of strength was fifteen drops of the acid to an ounce of water. The happiest results followed the application of this remedy in some cases where a purulent discharge had been noticed for years; and the hearing which had been previously impaired was perfectly restored.

In the progress of scarlatina, the sufferings of the patient have been greatly aggravated by the swelling so frequently observed in the tonsils, and likewise in the glands seated at the angles and base of the lower jaw. At the same time the mucous lining of the fauces has been severely affected, leading to the production of the ash-coloured exudation, with which the parts are often covered. In hopes of reducing the swelling of the glands, instead of drawing blood by means of leeches, or of vesicating the skin, from which such untoward consequences have resulted, recourse was had to the anointing the external parts with a liniment composed of iodine, ℈j. camphor, ʒj. lard, ʒj. This excited a moderate inflammation of the integuments, generally followed by a desquamation of the cuticle, and apparently expedited the discussion of the tumid glands. In no instance has the remedy transcended the powers of the system, and the relief so much desired has been more effectually obtained than by the means more generally in use. The diluted nitric acid, as recommended for the purulent discharge from the ear, was advantageously applied to the internal fauces and pharynx.

During the early portion of the year small pox ceased to be observed within the precincts of the city and districts. The first fatal case was recorded in the second week of May, and before the close of the month three more children were added to the number of those who fell victims to the disease. In the succeeding month two children were cut off by this pestilent malady, and again, the like number in July. In September, a gentleman returning south from the State of New York, sickened on his arrival in this city, and in the course of a few days, died of the small pox. From that period not a case of the disease has appeared in the list of interments.

In January, when it is believed that there were no cases of small pox existing among the inhabitants of the city and liberties, many children who had been previously vaccinated, were seized with

slight indisposition. On the second or third day, there appeared an eruption on various parts of the body, consisting of small, distinct elevations; the summit presenting a small rough speck of an opal colour, seated on a red base of one-eighth of an inch in diameter. The complaint was accompanied by a troublesome pruritus, experienced especially when warm in bed. On the third, fourth, or fifth day at farthest, the majority of the pocks had become dry, and were converted into minute crusts. Where the crusts were not formed, a disk of a milky hue, one-eighth of an inch in diameter, and indented in the centre was seen seated on a base of a faint red colour. The disease can hardly fail to be recognised as the varicella of Vogel, and familiarly known as the chicken pox.

About the middle of January some children were stated to have been affected with measles. The disease was mild and the number affected few, for not a fatal case was recorded before the first week in March. In the succeeding month the death of only one child was referred to this complaint. In May, the disease proved fatal to three children. In June, the mortality from this source had increased considerably; the records indicate eighteen children as having died of the measles. The number of fatal cases in July amounted to twenty-seven, the persons were all under age. From this period, the disease declined rapidly; the bills of mortality still gave evidence of some fatal cases. In November, the death of one child from the measles, appears in the list of interments. The entire mortality ascribed to measles amounted to sixty-two, which exceeds what might have been expected from the character of the disease in those instances which came under our immediate observation. Among the labouring classes, the remissness and the perverseness to which they are so habitually inclined, too often defeat the best directed efforts of the profession in the treatment of a disease in which, according to the experience of later years, in the better orders of society, the deaths do not exceed two per cent.

The cough, which usually precedes the other symptoms of the disease, has been observed to have continued beyond the term assigned by writers. This may have been owing to the previous existence of catarrh. In the early stage, the cough was dry and husky, but in the progress of the disease it became loose, and instead of the ordinary transparent viscid mucus, the sputum was yellow and without tenacity. The pneumonic affection was rarely severe, or the subject of much solicitude. The swelling and redness of the margin of the eye-lids, so characteristic of the measles, were strongly marked. In a young lady, of fair complexion, the eye-lids were nearly closed. The redness of the adnata, the intolerance of light and the flow of tears exceeded what has been usually observed in the disease. An acid odour of the breath was frequently observed until the decline of the eruption. This symptom was always accompanied by nausea, and occasionally by vomiting. The bowels were

often morbidly affected. The stools were small, green and slimy, very different from the diarrhœa, considered so favorable after the eruption has vanished. There were pain and tenderness of the abdomen, particularly about the iliac regions. On the decline of the eruption the discharges became more natural, though some degree of pain and tenderness still annoyed the patient.

The eruption presented occasional deviations from the normal character. The colour was more intense, and not confined in crescented patches but diffused, the tint resembling the bright redness of the pink, particularly on the limbs, the surface being rough and papular. The heat and itching of the skin were very annoying during the period of efflorescence. After the eruption had faded in one patient, the extremities were covered with spots, resembling in colour and form the marks left on the desquamation of variolous crusts.

For the most part, no very active treatment was required. The inflammation of the eyes, generally subsided on frequent ablutions with cold water. The sponging of the whole body, as in former seasons, proved particularly beneficial in allaying the heat and pruritus of which so many patients made such continued complaint. The irritability of the stomach, yielded on the administration of magnesia or soda, selected according to the state of the bowels.—Fomentations and the tepid bath were found very serviceable in allaying the pain of the bowels, and in procuring healthy stools, for the furtherance of which, it was often necessary to resort to castor oil, or to small and repeated doses of the mild chloride of mercury.

The aptha oris, was of frequent occurrence in the early part of the year. It was not confined to children, but proved very distressing to persons of mature age. The history of this complaint, and the treatment required, corresponded with what has been already presented in a late report.

Sudden death from exposure to the rays of the sun, or as occasioned by drinking cold water, has not been noticed in the weekly list of interments published by the Board of Health. The greatest mortality from apoplexy occurred in January, February, and March. Hydrocephalus proved most fatal to children in July; during the month, the death of twenty-six individuals of that age, are recorded in the weekly bills. Inflammation of the brain was observed in every portion of the year, the greatest mortality recorded was in August.

In the fourth month, (April) the typhus or ship fever was introduced into this city by the great influx of foreigners, some account of which is given in the Summary of Transactions for the sixth month (June) last. It was succeeded about the beginning of the eleventh month (November,) by a general typhoid tendency in most of the febrile diseases that took place during the remainder

of the year; besides which, there occurred in some of the small streets and alleys in the south-western section of the city, among the poor and destitute portion of the inhabitants, a fearful epidemic of a typhus character, sweeping off many after a few days illness. The prompt sanatory measures resorted to by the Board of Health were highly useful in checking its extension, notwithstanding 117 persons died of it during the eleventh and twelfth months. A few cases only of the endemic came within the observation of your Committee, from which they draw the following conclusions. It was commonly ushered in with an alternate sense of cold, creeping up the back, and flushes of heat over the body; aching of the limbs, a dull pain in the head, and in some instances, the back of the neck; a small, quick, and feeble pulse, attended with great prostration of strength. If left to itself for a few days, loss of appetite, thirst, furred tongue, sometimes dry at the tip and centre, sickness at stomach, occasional delirium occurred, the bowels were laxative, abdomen soft, hands and arms livid, without preternatural heat of the surface; while a general torpor and lethargy pervading the physical and intellectual faculties.

The duration of this fever was from three days to as many weeks, the convalescence was slow, and the recovery tedious, often attended with renewed and aggravated symptoms, after a full convalescence seemed established.

The following recital may serve to give an idea of the nature of some of the cases of this endemic.

E. C. aged about 35 years, of nervo-sanguineous temperament, residing within what was called the infected district, attended the funeral of her husband, on the 15th of twelfth month, 1847, who had died after a short attack of this fever. On her return home, she felt a stiffness in all her limbs, which was succeeded by cold creeps up the back and flushes of heat over the body, headache, and sick stomach; she continued ill all night and the following day; and sometime during the succeeding night the fever left her very weak and prostrated. She was visited on the morning of the 17th. Her pulse was about 100 in the minute, small, soft, and weak; the temperature of the skin felt about natural, though there was a livid appearance over the hands and arms, and her countenance looked anxious; her voice was rather husky, her bowels freely opened, and her tongue heavily coated with a thick white fur; she said she felt well, that she was free from ache or pain, and that nothing now remained but weakness. She was advised to drink freely of barley water, and keep herself quiet. In the afternoon she was visited again, and finding her much in the same state as in the morning, she was directed if fever should come on during the night to take the neutral mixture, and if free from fever in the morning to commence pills of the sulphate of quinia every hour until seen again.

18*th*. She had a restless night, with wandering dreams, and on

waking, slight delirium, with a pulse of about 100 in the minute, irregular, with some febrile action of a typhus character, thirst, warm skin, soreness over the abdomen, furred tongue, with a bright red margin; the abdomen was soft, and the bowels several times opened through the night; she was directed the neutral mixture, with a small portion of morphia in each dose, and barley water as a drink. In the evening, her stomach was much affected, rejecting every thing taken into it; great thirst and very feeble pulse; the neutral mixture was omitted; ice was given to allay the thirst; wine whey, turpentine julep were administered, and a blister applied on the epigastrium.

19*th*. She rested well through the night, except from occasional sickness at stomach; the blister drew well, pulse about 92 in the minute, and very feeble, tongue cleaning, bowels opened; there is rather a comatose condition of the system, and when roused she sighs deeply and has a ringing in the ears; she says she feels well, and that there is nothing the matter with her except weakness. The volatile julep was given, alternated with the turpentine mixture.

20*th*. Rested well, pulse about 100, skin feels natural, voice continues husky, tongue clean, and inclining to dry; she lies on her side, and can turn herself in bed, though her stomach continues sick and she is without inclination to take nourishment. In the afternoon, she ejected from her stomach every thing taken; omitted the julep, &c, and directed minute doses of the mild chloride of mercury, every half hour, and gum water; her skin was cool, extremities livid, and her strength exceedingly exhausted; warm applications were applied to her extremities.

21*st*. Stomach composed, pulse 84 in the minute; she feels much more comfortable, and continues the calomel powders as directed yesterday.

22*d*. Restless night, pulse 100, slightly feverish, tongue moist, and a little furred, extremities livid; gr. v. of the sulphate of potass was added to each dose of the calomel, and directed every two hours.

23*d*. She had a better night; yawns frequently, for which gr. j. of camphor was added to the powders, and given as before; the egesta were dark coloured and watery.

24*th*. Pulse 116, weak, tongue dry, stomach sick; omitted the powders, and gave turpentine julep again.

26*th*. Some fever the last two days, pulse about 100, and weak, skin and urine yellowish, and stomach sick.

27*th*. She had a chill this morning, which was succeeded by fever and increased prostration.

31*st*. Her condition has continued to vary daily, though marked with feeble pulse and great prostration, occasional delirium, dry tongue, hiccup, and indifference to surrounding objects; during which time the remedies used were volatile alkali, musk, camphor, spirits of

turpentine, quinia, blisters, infusion of capsicum and ginger; stimulating embrocations to the extremities; stimulating injections, wine, whiskey, soups, gruels, &c., &c.

First month, (January) 4th, 1848. Pulse continues feeble, voice stronger and more clear, skin becoming more natural, tongue moist, some inclination for food, particularly mush and milk, sleep regular, and when awoke there is more animation, and she takes interest in surrounding objects; continue the turpentine julep occasionally.

11*th.* There has been a gradual improvement, though her pulse remains feeble; she sits up much of the day, sleeps well at night, and her egesta have become regular, affording a reasonable belief that her strength will soon return; our visits were now discontinued.

Dr. Parrish read the following:

Observations on Etherization in Tetanus—with a case.

Early after the discovery of the remarkable property of ether, in annulling pain; it was suggested that its use might be extended with advantage, to a large class of nervous diseases, the nature and treatment of which are still involved in obscurity.

Amongst these, one of the most important, is tetanus, a malady of the most terrific character, and in the larger proportion of cases, totally beyond the reach of any method of treatment yet discovered. Within the past year, several cases of this disease have been reported in the English and French Journals, in which the inhalation of ether has been employed, with variable results; in several, it is said to have aggravated the spasms, and to have hastened the fatal issue, while in others, it has produced a temporary alleviation of the symptoms, without arresting the progress of the disease, and in two cases it is supposed to have promoted a cure.

Not having had access to the detailed history of these cases, I am not aware of the particular stage of the malady, in which the inhalation was resorted to, or of the extent to which it was carried.

When administered in the *incipient* stage of the disease, and before the spasms become general, it would seem, a priori, to afford us a valuable means of allaying the constitutional irritation, which is the precursor of tetanus, and thus of averting the attack.

Under these circumstances, it was employed in a recent case, which I attended in consultation with my friend Dr. Alexander Hart, and which it is proposed now to report to the College. It will be remarked that in this case, the tetanic symptoms were preceded by decided evidences of their approach, and that they were gradually developed, thus affording us a fair opportunity of interposing remedies; had the disease been suddenly induced, and had it spread rapidly over the system as it sometimes does, the result might not

have been so happy. The case however furnishes an important illustration of the value of this remedy, under circumstances where the most powerful anodynes taken into the stomach, failed to induce sleep, or to allay restlessness, at a time when the production of this result was all important to the safety of the patient.

Every surgeon who has seen much of tetanus, must have recognised that singular state of the nervous system, which generally precedes the spasms; a state in which there is an impressibility to the action of stimulants and anodynes, the patient is anxious and restless, his pain, which may before have been severe, has left him, and yet he cannot sleep; very soon he complains of a little stiffness in the back of the neck, and protrudes the tongue with some difficulty; then follows an occasional twitch in the injured part, with a shoot of pain up the limb, extending perhaps to the opposite side, with flatulence and colicky pains; if these symptoms be not speedily relieved by appropriate remedies, it is well known, that general tetanic spasms will ensue, which becoming more and more frequent and violent, destroy the patient.

The practice usually recommended under these circumstances, is to promote action in and around the wound, by the application of irritating poultices or ointments, and to control the nervous irritation. To accomplish the latter indication, various means have been resorted to, amongst which, the administration of opium in some of its forms, stands most prominent. Too often, however, this powerful medicine fails to produce its peculiar effects, even in the largest quantities, and the disease proceeds on unchecked.

Now, it is in this condition, that the inhalation of ether would seem to offer us a new, ready, and more powerful means of accomplishing the desired result, and in the case which I have the pleasure of reporting to the College, its effects in this particular stage of tetanus were certainly most happy, tending to arrest the progress of the disease, by suspending the spasms, and promoting repose; thus placing the nervous system above the influence of the malady.

Case.—Louis Hettenhausen, a German cabinet-maker, aged about fifty years, was attacked with severe pain in the index finger of the right hand, on the 20th of the first mo. (January) last. He supposed that he had been pricked by a splinter, and picked at the finger in order to get it out, but could find nothing. The pain steadily increased, and he complained of chilliness which affected him during the whole night. On the morning of the 21st, Dr. Hart was called to visit him; found considerable inflammation and swelling in the finger, with red streaks running along the course of the absorbents, on the back of the hand and fore-arm; the pain was excessive. Dr. Hart directed a full dose of calomel and opium, with ley poultice to the finger, and laudanum fomentations to the hand and arm. The pain not being relieved in the course of a few hours, after Dr. H.'s visit, a medical friend of the patient, under the impression that it

was a paronychia, made a free incision into the finger with a scalpel, without the discharge of matter, and with very little bleeding. No relief followed this operation, and the pain continued violent during the whole of the day and night, notwithstanding the patient took laudanum.

On the 22d, there was swelling of the limb, and a greater degree of inflammation along the line of the absorbents, on the back of the hand and arm, with appearances of commencing gangrene in the finger. The bowels had been freely opened, the tongue was furred, and the pulse, soft and compressible. Dr. Hart directed a continuance of poultice and fomentations, with twenty drops of black drop every four hours. On the morning of the 23rd, I was requested to visit the patient in consultation. The hand and arm were now greatly swollen, to some distance above the elbow, the pain was very severe, and the patient had been without sleep from the commencement of the attack. The tongue was heavily coated, and there was entire loss of appetite, with a soft, compressible pulse, and copious sweats. The finger was gangrenous.

A lotion of equal parts of lead-water and solution of opium was advised to the limb, and Kentish ointment to the finger; the arm was enveloped in a blister above the inflammation, and the patient was placed upon small doses of blue mass, with 20 drops of acet. opii. every four hours, with nutritious drinks.

On the 24th, there was no improvement; the gangrene of the finger was complete; swelling of the arm and hand had increased, without fluctuation at any point; the inflammation had extended above the blister.

The patient had slight, short naps through the night, without refreshing sleep. Free cauterization with nitrate of silver, above the inflamed surface, was resorted to. Porter was advised to be taken freely, and a decoction of the oak bark to be applied in wetted cloths to the limb. Quinia 2 grs. every four hours, and black drop, twenty drops every three hours.

25*th.* Inflammation had not extended above the cauterized line; tumefaction of the limb, very great up to the elbow; a line of demarcation formed above the second joint of the finger; less pain in the limb; fluctuation distinct on the back of the wrist. General symptoms not improved; patient cannot sleep, and sweats copiously; pulse more feeble, countenance pallid and anxious; has had no refreshing sleep since the beginning of the attack. A free opening was made through the integuments at the fluctuating point, followed by a discharge of thick, yellow matter, in small quantity; anodyne continued in same dose every two hours. Directed milk punch instead of porter. In the evening there was no improvement; though the patient had taken the black drop regularly, he had not slept; there had been during the day, several attacks of pain, extending up the limb to the muscles of the side of the neck, and shooting

along the course of the lower jaw to the ear. The patient though accustomed for many years, to the daily use of a small portion of brandy, had taken the most decided aversion to it, and could with difficulty, be induced to take the punch. He also had a disgust for food of any kind; pulse soft and compressible; bowels constipated; no stool produced from blue pill. The comp. tinct. of rhubarb was now directed, with a continuance of the quinia, milk punch, and black drop, every two hours. Another opening was made through the integuments, on the back of the fore-arm, from which pus issued.

26*th.* Less pain in the limb, with more tumefaction, and but little discharge; patient feels better, though he cannot sleep; bears pressure on the limb, and moves it about without pain; decided rigidity of the jaws, and difficulty in protruding the tongue; shooting pains occasionally, along the course of the jaw back to the ears, and a feeling of something being in the ears. Bowels still constipated, with occasional colicky pains, which we attributed to the action of the rhubarb; had sweat profusely during the night; pulse more feeble, and about ninety in the minute; coldness of feet; has no inclination for food, and rejects the brandy; has taken the black drop regularly every two hours.

Red precipate ointment was applied to the fingers and back of the hand; comp. tinct. of rhubarb continued; and a table-spoonful of Huxham's tinct. of bark in a wine-glassful of milk, given every two hours, in place of the quinia and milk punch. Morphia in camphor water, $\frac{1}{4}$ gr. every two hours, was substituted for black drop; essence of beef, by the spoonful, for nourishment.

In the evening there was no improvement; patient has had several copious stools during the day, preceded by sharp pain in the bowels; sweating copious, no appetite, pulse feeble, great restlessness, with little steady pain, occasional shoots up the limb to the neck and jaws; stiffness at the back of the neck and rigidity of the jaws, with præcordial oppression. Same treatment continued, with the addition of enemata of assafœtida and laudanum in broth, every four hours.

27*th.* Patient much in the same state as yesterday; no sound sleep, occasional short naps, from which he would start up with pain in the finger and arm; several copious, dark, thin and offensive stools during the night, great sweating, intellect perfectly clear, no steady pain, but great distress and restlessness; wishes himself dead, &c.; limb tumified, but a decided diminution in the inflammation and discharge, bears handling and squeezing at the orifices of the openings without complaint. Rigidity of jaws, and shooting pains continue; quantity of morphia increased, and assafœtida injections continued, with nourishment, aromatic spirits of ammonia given in addition to other remedies.

In the evening, the danger of general tetanic spasms was more imminent than at any previous period. The patient had experienced

during the day several severe shoots of pain, from the mortified part, up the limb to the back of the neck, and down to the pectoral muscle of both sides of the body, with increased stiffness of the neck and rigidity of the jaws; all the local symptoms were relieved. There was no pain in the limb, and very little discharge from the openings, with great restlessness and depression of spirits; he could not sleep, notwithstanding the constant use of powerful anodynes for several days past; the bowels continued free, and the discharges were becoming exhausting; he had colicky pain and no appetite.

At this juncture it was suggested that we should try the inhalation of sulphuric ether. A sponge saturated with this article was placed in the hand of the patient, and he was directed to inhale freely; in about five minutes, the hand which grasped the sponge relaxed, and he fell into a pleasant slumber. This continued for about two hours and a half, when he awoke with pain and restlessness, and again asked for the sponge, which he applied in the same way, with a similar result, and had another nap of the same duration.

28*th*. This morning Dr. Ashmead joined us in the consultation. The whole aspect of the patient manifested great improvement; five hours comfortable sleep had steadied the nervous system, and there had been no return of the spasms during the night; the opening of the jaws was still attended with pain, though the rigidity was less; the bowels had not been opened, and the colicky pains had ceased. The patient this morning, for the first time since the attack, took nourishment with an appetite. The condition of the limb had not materially altered, except that it was more sensitive to the touch. Huxham's tincture of bark and paregoric, a desert spoonful of each, were directed every two hours, with beef tea, porter, &c.; spirits of camphor was applied to the limb, and a sinapism to the spine, with directions to resume the inhalation of ether if pain or spasm should recur. During the day he had occasional shoots of pain up the limb to the shoulder and side of the neck, but not so violent and frequent as heretofore. The medicine and nourishment had been retained, and the constitutional symptoms had decidedly improved. He was directed to inhale the ether at bed time, and to repeat it, if necessary, as on the previous night, and to take small portions of nourishment at short intervals when awake.

29*th*. This morning we found the patient not so well; countenance more anxious; he had passed a restless night, and had experienced several severe paroxysms of pain in the limb, extending to the neck, but not to the other side; the hand and fore-arm were more painful, but the discharge of pus from the orifices was more copious; the inflammation was accurately defined and more acute. It was found on inquiry that the quantity of ether employed during the night was not sufficient to produce the desired effect; the attendants having neglected to have it replenished. A resort was

had to the inhalation several times during the day, with happy effects, the patient having enjoyed several refreshing sleeps after the inhalations without manifesting any previous excitement. A spasm of the muscles of the jaw coming on this morning while the patient was attempting to gap, and preventing the closure of the mouth for a few moments alarmed him greatly, but the spasmodic pains in the limb during the day were much less frequent. The patient took nourishment with appetite, and was evidently improving. At bed time the ether was directed as on previous occasions.

30*th*. Had passed the night without severe pain, and had slept comfortably most of the night, after inhaling the ether at bed time; countenance, pulse, and skin all favourable; jaws relaxed; pain in inflamed surface severe on motion or handling; healthy granulations forming around the gangrenous portion of the finger; free purulent discharge from openings at the back of the hand and arm, and around the granulations in the finger; the cellular tissue under the integument was completely destroyed in those parts attacked by the inflammation. From this period, the improvement of the patient slowly progressed, without any farther appearance of alarming symptoms, and in due time the finger was removed.

The chief interest attached to the case, (which was one of ordinary phlegmonous erysipelas) is derived from the fact, that the inhalation of ether acted the part of an anodyne, where the preparations of opium had failed to produce an impression, and when tetanic symptoms had set in. It is worthy of remark, that the ether here produced no excitement, or delirium, or nervous agitation of any kind as it sometimes does when administered to healthy individuals; but it simply induced sleep, which was prolonged for several hours, and appeared to be natural and refreshing.

How far the action of this potent agent is modified by the peculiar morbid conditions of the nervous system in which it may be given, has not yet been tested to any considerable extent. We know that the powers of opium and alcoholic stimuli are thus modified, and in no disease have we a better illustration of the fact than in tetanus. May not anæsthetic agents be influenced by similar laws?

It was resolved that, whereas our late President, Dr. Hewson was appointed to prepare a memorial of the late Dr. Henry Neill, but was prevented by sickness, and finally by death, from completing it, Dr. J. Marshall Paul be now requested to prepare the said memorial, to be read before this College, as early as may suit his other engagements.

Dr. Meigs presented to the Library, a copy of the Medical Examiner, containing the letter of Professor Simpson to him, on the

subject of the use of ether and chloroform in parturition, and his reply.

The College then adjourned to Tuesday, March 14th, 1848.

Adjourned Meeting, March 14th, 1848.

Dr. Meigs, Vice President, in the chair.

Present, twenty members.

The College proceeded to the consideration of the Fee Bill, as reported by the Committee of the whole, and after making sundry amendments in it, adopted it as follows:—

The following Table of Charges being founded on a just consideration of the professional services which the Fellows of the College are called upon to perform, it will be considered a duty on their part to conform to it, whenever the circumstances of their patients are not such as clearly to forbid it.

For a single visit or advice, in a case in which no further visits are required,	$5 to 10
This is not intended to apply to those cases in which the Physician is considered the regular medical attendant of the individual or family.	
For each visit, in a case in which the Physician is in regular attendance, or for advice at his office,.....	$1 to 2
Every necessary visit on the same day to be charged, whatever may be their number, at the same rate.	
When detained, for each hour,.....	$3 00
For a visit at a time appointed by the patient or his friends, during the day time.....	$2 to 5
For written opinion or advice to a patient	$5 to 20
For a visit at night, after ordinary bed-time,.....	$5 to 10
For a first visit as consulting physician,.....	$5 00
For each subsequent visit as consulting physician, in the same case,.....	$2 00
For each visit of attending physician, when in consultation,.....	$2 00
For a visit as consulting physician during the night,.....	$10 00

In visits to distant patients, one dollar to be charged for every mile beyond two from the residence of the physician, in addition to the ordinary charge, and $2 additional for crossing the River Delaware.

An extra charge may be discretionally made for travelling at night, or on account of the badness of the roads, or the inclemency of the weather.

For an opinion involving a question of law,	$ 10 to 50
For a post-mortem examination, in a case of legal investigation,	$ 25 to 50
For a post-mortem examination made at the request of the family or relatives of a deceased person,	$ 5 to 15
For a certificate of the state of health of an individual,	$ 5 00
For vaccination,	$ 5 00
For re-vaccination,	$2 to 5
For a case of midwifery,	$10 to 40
For the application of the forceps,	$10
For the operation of turning,	$10 to 20
For the operation of embryulcia,	$20

For any indisposition in the mother or child, after the tenth day from confinement, the charge for attendance as in ordinary cases requiring medical treatment. But when any *serious* ailment occurs in either mother or child within the ten days a charge is to be made for each visit as in other cases of disease.

For reducing fractures and the first dressing,	$10 to 20
For reducing recent luxations,	$10 to 30
For reducing old luxations,	$ 50
For removal of stone from the bladder,	$100 to 300
For amputation of a leg or arm,	$50
For amputation at the shoulder or hip joint,	$100 to 200
For amputation of a finger or toe,	$10
For the extirpation of large tumors,	$50 to 100
For the extirpation of other tumors,	$10 to 50
For trepanning,	$50 to 100
For the operation for cataract,	$75 to 150
For other operations on the eye and its apendages,	$10 to 50
For the operation for aneurism, subclavian, carotid, femoral,	$100 to 200
For the operation for strangulated hernia,	$50 to 100
For the operation for hare lip,	$20 to 50
For the operation for fistula in ano,	$20 to 50
For fistula in perineo,	$50 to 100
For the operation for hæmorrhoids,	$20 to 50
For the palliative operation for hydrocele,	$ 5 to 10
For the operation for the radical cure of hydrocele,	$20 to 30
For the operation for vesico-vaginal, or recto-vaginal fistula,	$50 to 100
For the operation for phymosis and paraphymosis,	$5 to 20
For the introduction of the catheter in ordinary cases,	$1 to 2
For the introduction of the catheter in cases of obstruction,	$10 to 20
For division of stricture of the urethra,	$10 to 50
For the operation for artificial joint,	$20 to 100
For the operation of tracheotomy,	$20 to 50
For the operation for imperforate anus, vagina, &c.,	$10 to 30
For the Cæsarian operation,	$100
For the reduction of hernia by taxis,	$10 to 50
For extirpation of the tonsils,	$10 to 20

For the introduction of the stomach pump, in cases of poisoning, ...	$10 to 30
For the removal of foreign substances lodged in the pharynx or œsophagus,.	$10 to 50
For the reduction of a prolapsus ani, ...	$5 to 10
For examination per anum or vaginam,.....	$5 to 15
For the introduction of a pessary,.....	$5
For the introduction of a seton, or forming an issue, ...	$5
For tapping for ascites, ...	$10 to 20

In all Surgical cases, the charge for subsequent attendance to be in proportion to the time occupied, and the trouble incurred.

It is recommended that in all cases of gonnorrhœa and syphilis, a retaining fee of from $10 to 25 be required in advance, the subsequent charge being graduated by the amount of the after attendance in each case.

SUMMARY

OF THE

TRANSACTIONS OF THE

COLLEGE OF PHYSICIANS

OF PHILADELPHIA.

FROM APRIL 4, TO AUGUST 1, 1848, INCLUSIVE.

Stated Meeting, April 4th, 1848.

Dr. WOOD, President, in the chair.

Present, twenty members.

A communication was received from the American Philosophical Society, acknowledging the receipt of No. 3, Vol. II., of the Summary of the Transactions of the College.

Dr. HAYS presented to the Library "Erfahrungen über die heilkräfte der Iod-und-Brom-haltigen Elisabeth-quelle zu Kreuznach, mitgetheilt von Dr. Prieger."

Dr. C. D. MEIGS read a paper on the pathology of Cyanosis Neonatorum; of which, on motion, it was resolved that he be requested to furnish an abstract, if he should think proper, for insertion in the Summary of the Transactions of the College.

On motion, it was Resolved that, inasmuch as the meeting of the American Medical Association will fall upon the first Tuesday of the ensuing month, the day of our next stated meeting, and as it is

expected that a large number of the Fellows will, in consequence, be then absent from the City, it is expedient to hold an adjourned meeting of the College on the last Tuesday in this month.

The College then adjourned to Tuesday, the 25th instant.

Adjourned Meeting, April 25th, 1848.

Dr. Meigs, Vice President, in the chair.

Present, twenty-one members.

Dr. Joseph Klapp was duly admitted a Fellow of the College.

The Committee on Publication reported that they had issued the fourth number of the second volume of the Summary of Transactions.

The Committee on the Library reported that they had received "A Descriptive Catalogue of the Pathological Cabinet of the Boston Society for Medical Improvement, by J. B. S. Jackson, M. D.;" from the Society.

Dr. Carson presented a copy of "A Code of Ethics, adopted by the Philadelphia College of Pharmacy," together with the following resolution passed by the said College:—

"At an adjourned meeting of the Philadelphia College of Pharmacy, held March 31st, 1848, on motion, it was ordered, that the Code of Ethics just adopted be signed by the officers of the College, and published in the Journal of Pharmacy, and that a committee be appointed to transmit a copy to the College of Physicians and other incorporated medical bodies in this city, and to take such other measures for its circulation as they may deem expedient, and that said committee be authorized to communicate with the College of Physicians on other matters connected with the interests of both professions.

"The following members were appointed on the Committee: Daniel B. Smith, Henry C. Blair, Dillwyn Parrish, William Procter, Jr., Samuel F. Troth, Dr. Joseph Carson, and Thomas P. James."

On motion, Resolved, That a Committee be appointed by the College of Physicians to confer with the Committee of the College of Pharmacy on the matters given in charge to the latter.

The following were appointed as the Committee: Drs. Henry Bond, D. Francis Condie, and Samuel Jackson; on motion, Dr. C. D. Meigs was added to the Committee.

CODE OF ETHICS

ADOPTED BY THE

PHILADELPHIA COLLEGE OF PHARMACY.

Pharmacy being a profession which demands knowledge, skill, and integrity on the part of those engaged in it, and being associated with the medical profession in the responsible duties of preserving the public health, and dispensing the useful though often dangerous agents adapted to the cure of disease, its members should be united on some general principles to be observed in their several relations to each other, to the medical profession, and to the public.

The *Philadelphia College of Pharmacy* being a permanent, incorporated institution, embracing amongst its members a large number of respectable and well educated apothecaries, has erected a standard of scientific attainments, which there is a growing disposition on the part of candidates for the profession to reach; and being desirous, that in relation to professional conduct and probity, there should be a corresponding disposition to advance, its members have agreed upon the following principles for the government of their conduct:

1st. *The College of Physicians of Philadelphia* having declared that any connection with, or moneyed interest in apothecaries' stores, on the part of physicians, should be discountenanced; *we, in like manner, consider* that an apothecary being engaged in furthering the interests of any particular physician, to the prejudice of other reputable members of the medical profession, or allowing any physician a percentage or commission on his prescriptions, is unjust toward that profession and injurious to the public.

2d. As the diagnosis and treatment of disease belongs to the province of a distinct profession, and as a pharmaceutical education does not qualify the graduate for these responsible offices, we should, where it is practicable, refer applicants for medical aid to a regular physician.

3d. As the practice of Pharmacy can only become uniform, by an open and candid intercourse being kept up between apothecaries, which will lead them to discountenance the use of secret formulæ, and promote the general use and knowledge of good practice, and as this College considers that any discovery which is useful in alleviating human suffering, or in restoring the diseased to health, should be made public for the good of humanity and the general

advancement of the healing art,—no member of this College should originate or prepare a medicine, the composition of which is concealed from other members, or from regular physicians.

Whilst the College does not at present feel authorized to require its members to abandon the sale of secret or quack medicines, they earnestly recommend the propriety of discouraging their employment when called upon for an opinion as to their merits.

4th. The apothecary should be remunerated by the public for his knowledge and skill, and in his charges should be regulated by the time consumed in preparation, as well as by the value of the article sold; although location and other circumstances necessarily affect the rate of charges at different establishments, no apothecary should intentionally undersell his neighbors with a view to their injury.

5th. As medical men occasionally commit errors in the phraseology of their prescriptions, which may or may not involve ill consequences to the patient if dispensed, and be injurious to the character of the practitioner, it is held to be the duty of the apothecary, in such cases, to have the corrections made, if possible, without the knowledge of the patient, so that the physician may be screened from censure. When the errors are of such a character as not to be apparent, without the knowledge of circumstances beyond the reach of the apothecary, we hold him to be blameless in case of all consequences, the prescription being his guarantee, the original of which should always be retained by the apothecary.

6th. Apothecaries are likewise liable to commit errors in compounding prescriptions,—*first*, from the imperfect handwriting of the physician; *secondly*, owing to the various synonyms of drugs in use, and their imperfect abbreviation; *thirdly*, from the confusion which even in the best regulated establishments may sometimes occur, arising from press of business; and *fourthly*, from deficient knowledge or ability of one or more of the assistants in the shop, or of the proprietor.

We hold that in the first three instances named, it is the duty of the physician to stand between the apothecary and the patient, as far as possible; and in the last that he should be governed by the circumstances of the case—drawing a distinction between an error made by a younger assistant accidentally engaged, and a case of culpable ignorance or carelessness in the superior.

7th. As the apothecary should be able to distinguish between good and bad drugs, in most cases, and as the substitution of a weak or inert drug for an active one, may, negatively, be productive of serious consequence—we hold that the intentional sale of impure drugs or medicines, from motives of competition, or desire of gain, when pure articles of the same kind may be obtained, is *highly culpable*, and that it is the duty of every honest apothecary or druggist to expose all such fraudulent acts as may come to his knowledge. But in reference to those drugs which cannot be obtained in a state

of purity, he should, as occasion offers, keep physicians informed of their quality, that they may be governed accordingly.

8th. As there are many powerful substances that rank as poisons, which are constantly kept by apothecaries, and prescribed by physicians, and which are only safe in their hands, as arsenious acid, vegetable alkaloids, ergot, cantharides, etc.—we hold that the apothecary is not justified in vending these powerful agents indiscriminately, to persons unqualified to administer them, and that a prescription should always be required, except in those cases when the poisons are intended for the destruction of animals or vermin—and in these instances only with the guarantee of a responsible person. And we hold that when there is good reason to believe that the purchaser is habitually using opiates or stimulants to excess, every conscientious apothecary should discourage such practice.

9th. No apprentice to the business of apothecary should be taken for a less term than four years, unless he has already served a portion of that time in an establishment of good character. Apprentices should invariably be entered as matriculants in the school of pharmacy, and commence attendance on its lectures at least two years before the expiration of their term of apprenticeship; and as the progress of our profession in the scale of scientific attainment must depend mainly upon those who are yet to enter it—it is recommended that those applicants who have had the advantage of a good preliminary education, including the Latin language, should be preferred.

On motion, Resolved, That a Committee be appointed to have five hundred copies of the Charter, Ordinances, and By-Laws, including the Code of Ethics and Fee Bill, printed in pamphlet form, for the use of the Fellows.

Committee, Drs. Isaac Hays, D. Francis Condie, and J. R. Paul.

On motion, it was Resolved, That the said Committee have also printed, in handbill form, one thousand copies of the Fee Bill, for circulation.

On motion, Resolved, That, inasmuch as it appears by the report of the Treasurer that Dr. Rush Vandyke has declined the payment of his annual contributions for the space of eight years and upwards, he has, in consequence, forfeited his Fellowship with the College.

Dr. Hays stated that he had received a communication from Dr. Jackson, of Boston, protesting against the conclusions to which the Committee of the Massachusetts General Hospital had arrived, in relation to the original discoverer of the anæsthetic properties of Sulphuric Ether when inhaled into the lungs; and stating that he

was preparing for the press a work in which his own claims to the discovery will be set forth, with the evidence upon which these claims are based. Dr. Hays made this statement as an act of justice to Dr. Jackson, and that the opinions of the Fellows might be suspended until the publication of that gentleman should appear.

Dr. C. D. Meigs read a portion of a letter from Dr. Schriener, of Allegheny County, Pennsylvania, and of one, also, from Professor Eves, of Georgia, giving accounts of cases of cyanosis neonatorum, in the treatment of which the beneficial effects of position was evidenced.

Stated Meeting, May 2d, 1848.

No quorum present.

Stated Meeting, June 6th, 1848.

Dr. Meigs, Vice President, in the chair.

Present, nineteen members.

Dr. Condie presented to the Library a copy of the "First Annual Report of the Philadelphia County Prison, 1848."

The Committee on printing a new edition of the Charter, Ordinances, and By-Laws of the College for the members, and one thousand copies of the revised Fee Bill for circulation, reported that they attended to that duty, and were discharged.

On motion, Resolved, That a copy of the revised Fee Bill be sent to each of the medical societies in the United States.

The Treasurer presented his Annual Report, which was referred to the Censors.

Dr. Condie presented and read the Annual Report on Diseases of Children, as follows:—

In preparing the present report on the Diseases of Children, the Committee have pursued the same plan as heretofore. The collecting and arranging the more important contributions that have reached us during the past twelve months, illustrative of the patho-

logy and therapeutics of the diseases of children, would appear to be the most effectual means of indicating the progress of our knowledge in reference to this important department of medicine; and your Committee believe that the preparation of these reports, humble as the labour may appear, is not without its advantage, by presenting in one view a mass of useful facts, which would often fail to reach the mass of the profession, or which elicit far less attention than their importance demands when dispersed through the various medical periodicals of the day. From the constantly increasing attention that is devoted to the elucidation of the true character and proper management of the morbid affections peculiar to the earlier years of life, these reports increase in interest with each succeeding year.

In the *New Orleans Med. and Surg. Journal* we find two communications, the one from Dr. B. F. White, of Whiteville, Tennessee, and the other from Dr. B. J. Hicks, of Vicksburg, Mississippi, describing an epidemic which occurred in their respective vicinities during the past year, the identity of which with the epidemics of Cerebro-spinal meningitis that have prevailed in different portions of Europe, is rendered evident by the similarity of the leading symptoms, the class of patients who were chiefly its subjects, and the lesions of the brain and spinal marrow discovered in the examinations after death made by Dr. White.

In Tennessee, the disease made its appearance, towards the close of February, in the region of country extending along the Hatchie river from Bolivar to Estanaula. It was principally confined to children between the age of six and fifteen years. The attack was ushered in by a sensation of chilliness, followed by moderate heat of the surface, and pain, commencing between the shoulders and extending to the occipital region, with rigidity of the posterior cervical muscles, retracting the head considerably backwards. Delirium supervened in an hour or two, with contraction of the pupils of the eye, or sometimes dilatation of one pupil and contraction of the other; ptosis of the eyelids; ecchymosis under the eyes and on the surface of the body; rigidity of the abdominal muscles; spasmodic twitchings of the flexors of the extremities, and a disposition to a constant motion of the legs from side to side, alternately. There was difficulty in expanding the lungs, respiration chiefly through the nostrils, constipation, and sometimes retention of urine. Stertorous breathing coming on, death soon closes the scene. The disease runs its course in from fifteen to seventy-two hours. Dr. White has known one case in which the disease was protracted to the twelfth day.

Almost every plan of treatment was tried—bleeding, emetics, cathartics, cold douche, cupping, mercurials, blisters, followed by opium, quinine, and stimulants. Every case in which the attack com-

menced with symptoms of extreme violence terminated fatally.—Three-fourths of the patients fell victims to the disease. Towards the last, however,as is the case in nearly all epidemics, the disease, to a certain extent, assumed a less malignant form.

Dr. White conceives that the change of the blood by the lungs becomes suspended, and that death is produced principally from *asphyxia*.

The disease commenced in Vicksburg about the 10th of January, 1846, and continued until the close of March.

The patients were attacked with groaning, muttering delirium, chilly sensations, pallid countenance, cold extremities; these symptoms were soon followed by restlessness, flushed countenance, frequent pulse, wild and frantic expression of the eyes, and hot and dry skin. The patient screamed violently when touched or spoken to, was unable to answer questions correctly, to locate the pain or indicate the suffering organs. Whilst sleeping, alternate pallor and flushings of the countenance was often observed, and violent inflammation of the right or left eye was not an unfrequent occurrence. On the second or third day the spinal muscles became very much contracted and rigid; in some instances to such an extent that the patients had considerable difficulty in swallowing even fluids; there was at the same time a loss of power in either the right or left upper and lower extremities, followed by convulsions of great severity, instantly excited by touching or raising the inferior extremities. There was no evidence of lesion of the biliary or digestive organs; the urinary secretion was unnaturally copious and pellucid.

There was absolute regularity in the period at which the various symptoms appeared; in some cases the tetanic symptoms were observed as early as the first day of the attack, and in others not until as late as the tenth. In many of the violent cases, within six hours after the patients were attacked, *petechiæ* of large size made their appearance upon the arms, over the eyelids, and upon the inferior extremities. These petechiæ disappeared on the fourth or fifth day, if the patients were not sooner cut off. In the most violent cases, death ensued on the fifth day of the attack; in other instances they survived from thirty to fifty days. But few cases recovered after the tetanic symptoms presented themselves. The mortality amounted to about 50 per cent. of all attacked.

Blood-letting, stimulants, and anodynes were found equally unsuccessful. In vigorous constitutions, blood-letting, in the onset of the attack, followed by an active mercurial cathartic, was often of great service. In patients of a more delicate constitution, cupping along the whole length of the spine and early vesication were preferred. Revulsives to the extremities and iced cloths to the head, with the internal exhibition of the following, in table-spoonful doses every two hours, were found to be of advantage, ℞. Pulv. gum. camph. ℥j.; Potass. tart. antimon. grs. ij.; Mucil. gum· acaciæ, ℥vj.; M.—

An enema, composed of ʒij. Spir. terebinth., ʒij. tr. assafœtida, and half a pint of thin starch, was administered morning and evening, with a view of tranquillizing nervous distress and keeping the bowels gently open.

The following was found to be the most beneficial tonic, after the violence of the disease had abated, for relieving the inertia of the nervous system, which occurred in every instance of recovery. ℞. Iod. ferri, ϑj.; Iodin. grs. viij.; Iod. potassæ, ʒij.; Syr. sarsapar. ʒiv.; M. Given in doses of a tea-spoonful every four hours, in a little water. It should be continued for some days, unless found to produce gastric distress; in which case some mild bitter vegetable infusion should be substituted.

We are presented with the post-mortem appearances in a single case examined by Dr. White. The body was not emaciated, a half an inch of fat covered the abdominal muscles. The posterior integuments of the head were swollen; both pupils dilated; on removing the calvarium, a considerable amount of blood flowed from the sinuses of the dura mater. The arachnoid membrane adhered with moderate firmness to the surface of the convolutions; whilst removing the brain from two to three ounces of clear transparent serum escaped from the ventricles. The brain appeared heavier than usual. The surface of the convolutions was much flattened. The base of the brain bore evident marks of inflammation. The membranes covering the medulla oblongata and the cerebellum, the right lobe more especially, were thickened and opaque, adhering, likewise, pretty firmly to the fissures of Sylvius. The membranes at the base were unusually vascular, but the substance of the brain itself was not much altered in color or in consistence. The membranes, more particularly around the third nerve of the right side, were thickened and more vascular than natural. On examining the superior surface of the brain, and separating the two hemispheres, they gave way inferiorly, from a softness of the lower part of the middle lobe of both hemispheres, and of a considerable portion of the corpus callosum. The corpora striata were very slightly injected, and softened, particularly that of the right side. The lining membrane of the ventricles was not altered in colour.

On dividing the vertebræ, a considerable quantity of fluid blood gushed out, the moment the interior of the canal was reached. It appeared to be perfectly flooded and engorged. The membranes were evidently thickened and highly vascular. The spinal marrow was not altered in appearance, but, if any thing, somewhat softer than natural. The substance of the marrow itself was not injected.

The viscera of the thorax presented no appearance of disease.

The liver was perfectly engorged with blood,—an incision being made through its structure, the blood could be squeezed from it as from a sponge. Its weight was 5½ pounds. The gall bladder was distended with a quantity of thich, black, bilious matter. The spleen

was large, but contained little blood in comparison with the liver.

The kidneys were congested but otherwise healthy. The intestines contained a quantity of thin greenish matter. There were a few spots of ecchymoses in the lower two-fifths of the ileum. The small intestines contained a few large worms. The alimentary canal was otherwise healthy. The urinary bladder bore no mark of disease.

Dr. Hicks gives also an account of the post-mortem examination in one case, but it is so deficient in detail that nothing satisfactory can be derived from it.

The same form of disease prevailed also, during the last year, at Rocheport, Boon county, Missouri. In a letter addressed to Professor Dunglison, (*Medical Examiner*, *Vol.* 10, *p.* 604.) Dr. W. C. Phillips, thus describes the disease as it appeared in the last mentioned locality.

It occurred in persons of all ages, but most commonly in children from 10 to 15 years. The first indication of an attack was often a pain in the hand, foot, arms, legs, eye, brain, lungs, stomach or bowels. Sometimes one, or at others a number of these locations at the same time, were primarily affected. In some cases there was a sensation as of cords drawing at the back of the neck, producing stiffness. In one case, there was a contraction of the occipito frontalis, and of the muscles of the face. In many instances there was so much soreness of the surface as to render the smallest amount of clothing intolerable. The disease was usually ushered in with a chill, of variable intensity, succeeded by a re-action, differing in intensity, and this re-action was followed, in from 3 to 12 hours, by a second chill. In many cases there was excruciating pain in the arms, legs, and other parts of the body, and this pain, when located in the limbs, was often accompanied with swelling of and stiffness and inability to move the joints and more or less loss of the use of the limbs. The pains were sometimes permanent, but at others, shifting from one point to the other. The neck was often drawn backwards or forwards to an angle of about 45° from its natural position, and so ridgidly fixed, that it would break short off before it could be forced to resume its proper position—it was at the same time, considerably swollen. The external surface was sometimes beautifully spotted; in a few cases there was an exanthematous eruption. The disease was attended by either profound coma, wild and furious delirium, subsultus tendinum, apoplexy or paralysis. In one case there was blindness of one eye, accompanied with permanent pain in the head, and swelling of the joints. The lungs may or may not be implicated. The stomach was often affected with nausea and vomiting. The bowels were not particularly affected. Trismus occured in one case. In other cases there was an inability to swallow any thing, from the swollen and painful condition of the larynx and pharynx.

Five-sixths of the cases terminated fatally.—In many instances the fatal event occurs almost at the very onset of the disease; in general, death takes place in from six to twenty-four hours.

Dr. Phillips gives no account of the lesions detected upon a post-mortem examination.

Dr. Hérard has made Thymic Asthma the subject of an inagural thesis. He observed numerous cases of the disease in the Children's Hospital, at Paris, and considers it to be the result of spasm of the glottis or of the diaphram, and conceives that there are three forms of it, according as one or other, or both of these organs are the seat of convulsion. When the spasmodic attack is limited to the glottis, the respiration is simply arrested for a few seconds, and is restored without the production of the special cry produced by inspiration during convulsions of the diaphram. In the second form, in which the diaphram *alone* enters into spasmodic action, the attack is marked only by several successive and sonorous inspirations; the symptoms of asphyxia are by no means so well marked as in the first variety because the glottis does not participate in the convulsion. In the third form, both the glottis and the diaphram are simultaneously convulsed, respiration is first suspended, and one or more sonorous inspirations are heard, and, not being followed by expiration, asphyxia is soon imminent. These sonorous inspirations resemble the crowing of hooping cough, and are produced by the same cause. Death may occur, 1, during the attack, from asphyxia, 2, it may result from cerebral disease, or, 3, it may be the consequence of gradually increasing debility.

On the examination of the bodies of children who have died of this disorder, Dr. Hérard asserts, that no characteristic alteration can be detected. As to the hypertrophy of the thymus gland, he refuses to admit that it has any thing to do with the production of the disease, and shows, from careful drawn up statistics, that the volume of the gland is in harmony with the states of health or weakness of the constitution, and not with the presence of asthma. It is somewhat strange that anatomists should disagree as to what is the normal size of an organ, a fact which would at first sight seem so easy to ascertain, and yet scarcely two are found to agree. Dr. H. attributes the large size which the thymus sometimes attains entirely to the vigorous constitution of the child. The German physicians place in the brain the cause of thymic asthma, and refer it to an arrest of development, indicated by the incomplete ossification of the fontanelles, the enlargement of the liver, the late evolution of the teeth, and the hypertrophy of the thymus. Dr. H. cannot adopt these views, and observes, with much reason, that it is, precisely, in large well formed children that the thymus gland is found in a state of hypertrophy. Dr. Corrigan has considered inflammation of the cervical portion of the spinal cord as a cause of spasma

glottidus, and has published an interesting case in the *London Medical and Surgical Journal*, (1836,) to illustrate this position. But this case, in which spinal irritation, at least, seems evidently to have produced the disease, is a solitary one, and while it compels us to admit that spinal irritation may occasionally induce spasmodic contraction of the glottis, still, it does not prove it to be its only cause. The anatomical alteration which Dr. H. has constantly met with, viz: pulmonary emphysema, cannot be considered in any other light than as an effect of thymic asthma.

In the *Abeille Médicale* we find recorded by Dr. Pury, several cases of the disease which terminated fatally; on dissection a remarkable development of the thymus gland was detected, and Dr. P. does not hesitate to ascribe the disease to the pressure of this enlarged body upon one or both lungs. He conceives that the hypertrophy of the thymus recognises for its principal cause a scrofulous heriditary predisposition, and a certain unknown and unhealthy condition of the maternal milk. These cases, however, prove nothing—a greatly enlarged condition of the gland has been shown to exist, in numerous cases, in which not a symptom of asthma was present, while the latter has existed when no abnormal enlargement of the thymus could be detected.

M. Guersant jr. in a paper in the *Gazette des Hôpitaux*, Nos. 48 and 52, presents some very interesting remarks on the treatment of croup. To constitute this disease, he acknowledges, with the best modern authorities, that the presence of a membraniform exudation in the larynx is essential. The disease, he remarks, may commence at the tonsils, in the bronchi, or suddenly in the larynx itself. In the first case there is more or less redness of the pharynx with swelling of the tonsils, and, what is of great importance, these latter are covered with little white patches, which sometimes extend as far as the velum or uvula.

The medical means for the treatment of croup are according to M. Guersant very limited. Depletion, once so freely employed, under the supposition that the disease was a simple inflammation, is very rarely, he conceives, of any utility, and is often injurious. Emetics have proved far more useful as adjuvants, by favouring the detatchment and expulsion of the false membranes—but alone are not to be relied upon. Mercurials, especially when used early, have, he believes, often exerted excellent effects upon the disease—they are beneficial only in cases where the dyspnoea is not very urgent, or the patient much enfeebled—used alone they have seldom effected a cure. Hence M. G. conceives that it is upon surgical treatment we must in the generality of cases chiefly rely—Under the head of surgical treatment he includes the application of caustics to the pharynx, and the operation of tracheotomy. As a local application he prefers the nitrate of silver. Weak solutions of this

article are sufficient at the earliest stage of the disease, when there is little else than the pseudo-membranous deposits upon the pharynx. In some instances these cannot be detected in an examination of the fauces, being deposited, from the first, solely in the larynx, but such cases are rare. Occasionally the deposits are not detected in the pharynx in consequence of the first stage of the disease being already passed.

In the early period of croup the symptoms are but little urgent; and a physician who is not accustomed to treat children, often neglects to examine the throat. M. Guersant makes it an invariable rule, to make such examination whenever a child manifests any febrile reaction; and in this manner he has frequently been enabled to detect the approaching disease, the presence of which would not, otherwise, have been suspected. At first, and while the tonsils are covered with the plastic exudation, the symptoms, as already remarked, are not severe—but this is, nevertheless, a precious moment for the surgeon; he may now frequently arrest a disease, which, if allowed to go on, is usually fatal.

While employing the solid caustic, the child should be held by a strong assistant, the tongue must be depressed by a broad instrument, as a very large spatula, or the handle of a large spoon, or what M. G. prefers, a large wooden tongue depressor. For fear of accidents the caustic should project only very slightly from its case. Many practitioners prefer the caustic in solution, and in the earliest stage of the disease a weak solution applied three times a day will suffice, but in serious cases the solution must be very strong—1 part to 3 or 4 of water—and need, then, be used only once a day. It may be applied by means of a sponge fixed to the end of a piece of whalebone by sealing wax. To prevent the extension of the false membrane, the caustic should be applied beyond its margin as well as upon it. The application frequently dissipates the exudation from the tonsils, and yet it may extend to the epiglottis. The caustic is still our best remedy. A larger sponge is now required, which must be fixed upon a strong whalebone, bent at an obtuse angle. The operator places himself on one side, and, introducing the sponge directly to the base of the tongue, executes some semi-rotary movements. Sometimes the epiglottis is raised, and the fragments of false membrane are detached from its inferior surface, which may be known by the paroxysm of dyspnœa this gives rise to. The caustic, in these cases, requires to be repeated three or four times in the twenty-four hours.

When, notwithstanding the full and persevering use of the caustic, the disease is not arrested, tracheotomy is our only resource. M. Guersant, has, next to M. Trousseau, performed this operation more frequently than any one else, and he speaks unhesitatingly as to its propriety, and believes that numerous failures arise from its being too long deferred. Cases have been known to recover, after the op-

eration, notwithstanding the false membrane had penetrated even into the larger bronchi. The vital point which cannot tolerate the presence of the slightest amount of the pseudo-membranous exudation is the *Cordæ vocales*. In performing tracheotomy M. G. usually employs a straight bistory, and has several small sponges mounted on whalebone and a curved ring forceps at hand. If the false membrane does not reach into the trachea we have only to maintain the aperture patent, while, when it extends lower down, its removal may be attempted by means of the bent forceps. To maintain the wound open, the canula of M. Trousseau is an admirable instrument. It consists of a double canula, so that when obstruction occurs, the inner one may be changed without disturbing the outer one. M. M. Trousseau, and Bretonneau, prior to introducing the canula, pass small sponges, moistened with a solution of nitrate of silver, into the trachea, but M. G. doubts, the propriety of any such interference, unless false membranes are obviously present. The canula may usually be removed at the end of from eight to twelve days, but sometimes requires to be retained for twenty or thirty.

The air of the chamber should not be kept too dry and hot. To render it sufficiently humid it is a good practice to evaporate some emollient decoctions in the room several times a day. It is difficult to maintain an equable temperature about the child; for a long period M. G. has experienced the utility of wrapping around the neck, without tightening it, a light woolen comforter, having its meshes very widely knitted. By this contrivance, the air, before it reaches the trachea, becomes sufficiently warmed. When the canula becomes obstructed, the inner canula should be removed and cleaned, instead of thrusting sponges into it, which may increase instead of removing the obstruction. When it is deemed proper to cleanse out the trachea, only the most delicate whalebones must be employed. When indurated concretions form, both canulæ should be removed, and the patient encouraged to expel them by coughing. M. G. has never removed the canula before the tenth day, but M. Trousseau has done so on the third or fourth. He advises us not to remove it suddenly, but, at first, for one, and then for several hours daily.

The croup is so grave and so constantly mortal a disease, that we should have recourse to tracheotomy before it reaches its last stage. M. Trousseau at first recommended its performance *as late as possible*, but found it almost always unsuccessful; but now, having met with numerous instances of success, he recommends its performance *as early as possible*—as soon, in fact, as no other chance of success remains. Of 136 children operated upon, M. T. has saved the lives of 32. M. G. has met with 4 successful cases in 36 operations—a success, he conceives, sufficiently great for us to lay it down as a law that we should perform the operation rather than allow the infant inevitably to die.

Dr. Latour relates, in the *Gazette Méd. de Paris*, of August, 1847, a case of croup in a child of four years old cured by the local application of a solution of nitrate of silver to the larynx. The symptoms under which the patient laboured were sore throat, accompanied with a hoarse cough, fever, anxiety, and other severe symptoms; the uvula and right tonsil being covered with very adherent false membranes. The solid nitrate of silver was immediately applied to all the affected parts within reach, followed by an emetic, by which some fragments of false membrane were brought away. Next day the false membrane had not covered the left tonsil, but appeared to have extended downwards, and the larynx seemed to be involved in the disease, as there was a suppressed hissing cough, and loss of voice. Dr. L. determined to employ a solution of nitrate of silver, seven to eight grains to the ounce. A strong ball of lint being saturated in the solution, this was conveyed to the opening of the larynx by means of a long curved pair of forceps, and then the solution was squeezed out by compressing the ball between the blades. The solution was, in this manner, applied every eight hours, for four days, with complete success; the voice was first restored, and then convalescence was soon fully established.

Dr. Chas. Ware also records, in the *Boston Med. and Surg. Journ.* for December, 1847, a case of membranous croup, successfully treated by the application to the larynx, by means of a piece of sponge attached to a whalebone, of a solution of nitrate of silver, (sixty grains to the ounce of water.) The disease in this case was evidently limited to the trachea, if not to the larynx, and in this respect was peculiarly favourable for this treatment.

Dr. W. N. Blakeman likewise relates, in the *N. Y. Med. and Surg. Reporter*, two cases of croup treated successfully with a solution of nitrate of silver. In the first case, which occurred in a child two years of age, after the most active treatment had been persevering-ly employed, for about eighteen hours, without avail, the symptoms of suffocation becoming alarming, Dr. Blakeman commenced the application to the larynx of a solution of nitrate of silver, a drachm to an ounce of water.

The application was somewhat difficult, and the dyspnœa very great; a quantity of thick, tenaceous substance was brought away by the sponge, and a large quantity by the vomiting which followed. At the end of ten minutes a second application was made; a larger quantity of membraniform matter was brought away by the sponge and vomiting. The breathing now became less laborious, the crowing sound less sharp, and the child more quiet. After about five hours from the last application of the solution, a third was made; a thick, tenaceous matter, of a yellow colour, was brought away upon the sponge and by vomiting. After the vomiting, the child fell asleep; on the next morning a slight hoarseness alone remained, which required no further treatment.

In the second case, which occurred in a child six years old, the application of the solution of the nitrate of silver was resorted to at the very commencement of the attack. Two applications were made, each being followed by vomiting, and the discharge of a quantity of tough mucus; and at the end of seven hours the child was well, with the exception of a slight hoarseness.

A summary of Professor Trousseau's observations on the anatomy of Pneumonia, as it occurs in infants, has lately been published. According to this gentleman, genuine pneumonia is never observed in children, but a catarrhal or spurious inflammation of the lung, preceded by capillary bronchitis. Catarrh precedes, accompanies, and often survives the pneumonia, giving to its progress, duration, or return peculiar characters, which distinguish it from the pneumonia of adults. The first form which we meet with, is one in which numerous isolated nodules present well circumscribed indurations, in the inferior and middle lobes of the lungs; this is the *lobular-disseminated pneumonia*. In another variety the nodules are larger, and equal in size to small almonds or hazel-nuts, constituting the *pneumonia lobularis agminata*. In a third variety, the *pneumonia lobularis pseudo-lobaris*, the largest indurations unite, and occupy the greater part of a lobe, thus simulating true pneumonia of the adult, from which it differs in this respect, that the inflamed mass is formed of lobules which have become the seat of inflammation at successive and irregular periods, and which, therefore, present, in their mottled granitic aspect, shades of colour by which the various epochs of successive inflammation can be more or less accurately judged. As to the true lobar-pneumonia, it is extremely rare in children. The lung of the adult is inflamed *en masse*; all its elements are at the same time the seat of anatomical changes; but it is not so in the infant. In it the lung is affected in detail, and the lobules, being separately diseased, give to the section the granitic aspect noticed above. On the surface of the division you will occasionally observe numerous drops of pus issuing from what appears to be dilated bronchi, but in reality from little abscesses resulting from the diseased lobules in a state of suppuration. These are real vomicæ, which are as common in childhood as they are rare in the adult. On the margin of the diseased lung we also sometimes find transparent yellowish spots, of the consistence of jelly, and resembling in colour the agate or carnelian stone. In these spots hardly any trace of parenchyma is discernible, and, when thrown into water, they sink to the bottom. The fœtal state to which MM. Legendre and Bailly have lately directed their attention, appears to M. Trousseau to have received an undue degree of importance. He cannot believe that state continues so late as the tenth or twelfth year--a period too far removed from birth to permit the production of the

fœtal condition of the lung by the very simple mechanism pointed out by those gentlemen.

In infancy, according to M. Trousseau, the complication of pneumonia with inflammation of the pleuræ, so common in the pneumonia of the adult, is extremely rare. The bronchi are usually found to be red and inflamed, with thickening of their mucous membrane, and slight dilatations, as after hooping-cough; accidentally, even small lacerations may be seen on their surface. The lymphatic ganglia are also, frequently, the seat of tumefaction, and complete the series of anatomical changes which are produced in the lungs of children by the presence of pneumonia.

Mr. Crisp, in a paper read before the South London Medical Society, and published in the Lancet for January, 1847, on the subject of pleurisy in infants, presents the results of forty-one post-mortem examinations made by him, in children under two years of age: the greater number under one year. In six cases inflammation of the pleura was detected, and in five of these it was combined with pneumonia; in one case it was complicated with pericarditis; in another with peritonitis and hydrocephalus; in one case only the pleura alone appeared to be affected. Mr. Crisp considers that pleurisy is by no means so rare a disease as is generally believed. Although in some instances it is more difficult of detection in young children than in the adult, and is especially liable to escape observation in infantile life, where many valuable signs, obtainable in more advanced life, are wanting, still, when the inflammation is confined chiefly to the pleura, it may be easily recognised: even when complicated with pneumonia, attention to the auscultary signs may enable us to detect its existence. When accompanied with pneumonia, or occurring alone, it is a disease of great danger; and unless properly treated in its early stage, it is little, if at all, under the control of medicine.

The symptoms observed by Mr. Crisp in infantile pleurisy were; great restlessness, violent screaming at the onset of the attack, very quick pulse, hot and dry skin, glassy eye, dry, unfrequent cough; the head thrown back, and great apparent pain on placing the child erect. On auscultation a dry rubbing sound was heard. Many of these symptoms may be present in other diseases, as pneumonia, increasing the difficulty of the diagnosis; but when the dry rubbing sound is heard, with frequent screaming, and an apparent increase of pain on elevating the head, the existence of pleurisy is pretty clearly indicated. If, in addition, mucous and crepitating ronchi are heard, and only a small portion of the serous membrane is inflamed, the diagnosis is more obscure; but the disease may be recognised by careful investigation.

Mr. Crisp narrates four cases he had seen of infants, in whom, although the disease was unsuspected during life, signs of pleuritic

inflammation were found on a post-mortem examination. In another child, ten months old, after indisposition for several days, the patient was seized with quick breathing, short cough, hot, dry skin, quick pulse, and inability to cry aloud, although two days previously it had screamed violently at intervals, as if in pain; a dry rubbing sound was heard on both sides, especially on the right side of the chest; the head was thrown back, and the erect position increased the pain. Notwithstanding depletion, and the exhibition of calomel and antimony every four hours, the child died; on examination of the body, a large deposit of straw-coloured lymph was found on the right pulmonary pleura, in parts one-sixth of an inch thick, with slight adhesions to the costal pleura, but without fluid. Lymph, less abundant, was found on the left side, with red hepatization of the upper portion of the lung. In another child, four months old, the symptoms commenced suddenly, with a shrill scream, which continued, at intervals, for nearly twenty hours. When seen by Mr. C. the symptoms were, hot skin, quick pulse, short dry cough, very quick breathing, glassy eyes, head thrown back, and pain much increased when the head was moved forward; dry rubbing sound indistinctly heard over the sides of the chest. Antimonials, calomel, and local depletion were ordered, with temporary relief; but the symptoms became gradually more unfavorable, and the child died. On examination, both pulmonary pleuræ were found covered with straw-coloured lymph, uniting these to the costal pleuræ; the surface of the pericardium was also coated with lymph, but there was no fluid in this or in the pleural cavities. The lungs were congested posteriorly, but healthy in structure, as were the heart and abdominal viscera.

Mr. Crisp considers it fortunate that the only diseases with which infantile pleurisy can be confounded, viz., pneumonia and pericarditis, require the same treatment. He would, however, suggest a recourse to more active measures in pleurisy, if seen in the first stage, than in pneumonia. If the case is seen early there is no reason why the disease should not be arrested. He had seen two cases in which, from local and general symptoms, pleurisy in an early stage probably existed, where the patients convalesced under the use of warm baths, leeches, calomel, and antimony.

Dr. Volz, in a paper, published in Häser's Archives, Bd. IV. Heft 3, conceives that there are many reasons why hooping-cough should be classed among the exanthemata, rather than among the neuroses. Among these reasons he enumerates, its epidemic character, its contagious nature, its attacking chiefly children, its occurring only once in the same individual, its regular progress, its uninterrupted career, and its affinity to measles. The fact that an eruption is seldom perceived in hooping-cough, he conceives to be no evidence of its non-relationship to the acute exanthemata, since in the other epidemic affections of this class, cases frequently occur without any external erup-

tion, but in which there can be no doubt as to the character of the disease; in others, again, the eruption is so transient that it is frequently overlooked. The relationship between hooping-cough and the acute epidemic contagious exanthemata has been suspected since the time of Autenrieth. Neuman (*Krankheit. des Mensch.* Bd. I., s. 648) has observed hooping-cough accompanied by an eruption resembling measles in form, but having the colour of scarlatina, and appearing chiefly on the breast and arms. Dr. Volz has also seen something similar. Besides the ordinary morbid appearances, this gentleman describes certain changes on the intestinal mucous membrane; these are observed chiefly in the glands of this part, and are of an exudative character, and such as are considered by Rokitansy as peculiar to certain pathological processes, including the exanthemata.—If this peculiar alteration in the glandular apparatus of the intestinal mucous membrane is met with, not only in scarlatina, measles, cholera, and typhus, but also in gangrene, purulent deposits, &c., then it is evident that it is not the characteristic of a specific disease, but of some abnormal changes in the blood. Hooping-cough is therefore, according to Dr. V., to be classed among the diseases produced by an abnormal state of the blood.

With regard to treatment, Dr. Volz found, in a few cases, tannin and nitrate of silver to alleviate the violence and frequency of the paroxysms; they were in general, however, inefficacious. Belladonna was found more generally beneficial.

In a former report we noticed Dr. Bird's recommendation of alum in pertussis. In a recent edition of Underwood's Treatise, edited by Dr. Davies, of London, that gentleman remarks that, after a long trial, he is disposed to attach more importance to alum, as a remedy in hooping-cough, than to any other form of tonic or antispasmodic. He has often been surprised at the speed with which it arrests the severe spasmodic fits of coughing; it seems equally applicable to all ages, and almost to all conditions of the patient. He was formerly in the habit of taking much pains to select a certain period of the disease for its administration, and of waiting until the cough had existed at least three weeks, taking care that the bowels were open, the patient free from fever, the air passages perfectly moist, and the disorder free from complication of any kind. A continued observation of the remedy, however, has induced him to be less cautious, and he is disposed to think that a very large amount of collateral annoyances will subside under its use. The fittest stage for its administration will be the moist condition of the air passages, and freedom from cerebral congestion; but an opposite condition would not preclude its use, should this state not have yielded to other remedies. It generally keeps the bowels in proper order, no aperient being required during its use. The dose for an infant is two grains three times daily; and to older children four, five, and up to ten or

twelve grains may be given, mixed with Syrupus rhœados and water. It is seldom disliked.

We have ourselves prescribed the alum during the second stage of pertussis, in a number of cases, and invariably with the most decided benefit.

Drs. Friedleben and Flesch, of Frankfort, in a paper on the pathological anatomy of the intestinal mucous membrane in the infant at the breast, for an analysis of which we are indebted to the *Monthly Journ. Med. Sciences*, for September, 1847, remark, that hitherto, softening of the mucous membrane of the stomach, and enlargement of the mesenteric glands have been usually regarded as the only causes of the acute or chronic diarrhœa, with atrophy, to which so great a mortality is due within the first year of life. This view they think they can disprove by exact post-mortem investigations. Softening of the mucous membrane of the stomach they regard as exceedingly rare, having met with it only in two instances, in one of which it proved fatal within twenty-four hours; while, in the other, there existed a fatal complication of intestinal disease. Diminished consistence at the fundus of the stomach was more frequently observed, but its origin was at all times secondary. They found enlargement of the mesenteric glands also to be uniformly secondary, of limited extent, and rarely of distinct character, except in the glands on the root of the mesentery. The enlargement of these glands could not have been felt through the abdominal walls, and hence it seems certain that hardened feculent masses have been mistaken by many for enlarged glands. These gentlemen indeed affirm, that even in the dissecting room, after opening the abdominal cavity, the mesenteric glands cannot be felt enlarged until the intestines have been removed.

Before entering on the pathological appearances, they give a sketch of the normal appearances of the parts concerned, in infants at the breast. The colour of the mucous layer, as well as of the subjacent mucous membrane itself, is either grayish-white, or yellow, from the colouring principle of the bile, or more or less of a darkish livid colour, from imbibition of blood. It is to be remarked, however, that in this last case the mucous membrane is free from any arborization or punctation. The mucous membrane adheres very closely to the subjacent tissue, so that, after being cut through, it can be detached only to a small extent. The mucous membrane of the colon, however, is less firmly adherent, owing, probably, to the greater amount of subjacent cellular tissue; its consistence is always great enough to prevent it from being rubbed off by the finger or with the back of a knife. Where the adhesion appears lessened, without simultaneous diminution of its consistence, large pieces of the mucous membrane may be separated from the subjacent cellular tissue. The solitary glands, neither of the small intes-

tines nor of the colon, are visible to the naked eye. As to those of the colon, however, we discover, occasionally, delicate roundish spots, presenting a contrast to the rest of the membrane by their opaque colour, but without any elevation. The villous layer and the glands of Lieberkuhn are also invisible. The Peyerian patches, on the contrary, may be discovered at the earliest period of life, when the intestine is held up to the light, owing to their greater opacity as compared with the rest of the membrane. Whenever these patches are recognised at first sight, a pathological state may be suspected. The largest of the patches are seated near the ileo-cœcal valve, where they may be distinguished by their marked limits. The number of the patches varies as much as from sixteen to thirty-six. The cases in which they are found to be only from one to six, are regarded by the authors as referable to atrophy of the mucous membrane.

After presenting a minute description of the several pathological states of the parts, of which only a very unsatisfactory account is contained in the periodical from which we quote, the authors sum up their observations by the following general conclusions:

1. Morbid alterations of the intestinal mucous membrane are a very frequent, probably the most frequent, *post-mortem* appearance in the infant at the breast. 2. When of a chronic character, these alterations lay the foundation of atrophy; when acute, their most prominent effect is exhausting diarrhœa, which, from the cerebral symptoms often attendant on it, had been mistaken by many observers for softening of the stomach (gastromalacia). 3. The frequency of the alterations above described, is as remarkable as the rarity of those which were once believed to be of common occurrence,—for example, enlargement of the mesenteric glands, apthous formations, gastromalacia, &c. 4. It is also to be remarked, that the diseases of the intestinal tract are in general far more frequent than those of the stomach, which, with the exception of softening of the fundus, are proportionally rare at this period of life. 5. The ulcerations of the mucous membrane, unless when secondary, are in most cases isolated. 6. The most frequent of the alterations under examination is chronic inflammation of the Peyerian patches, and this is the only anatomical cause of atrophy. 7. Next to this, but far more rarely, the red and white softenings are essential causes of atrophy. 8. Red and white softenings are but different stages of the same morbid process; the simple and gelatinous softenings give but a difference of form. 9. In atrophy of infants at the breast, chronic ulceration of the solitary glands of the small intestines is among the rare occurrences. 10. The acute inflammation of the Peyerian patches, though hitherto little attended to, is among the most fatal of morbid alterations. 11. This is a true inflammation, as is attested by the attendant affections; for example, croupous lobular pneumonia. 12. It is an affection not generally known, and the few who are

acquainted with it commonly refer it to dothinenteritis—a disease which does not occur in the infant at the breast. 13. Secondary acute inflammation of Peyer's glands, as well as inflammation of the solitary glands, belongs to tuberculization; in all such cases, tubercles of the spleen are met with simultaneously, but never in the intestinal tract. 14. The colonitis of the French observers was often met with, but uniformly of small extent, and of subordinate importance compared with the simultaneous, but far more serious, alterations of the mucous membrane of the small intestines. 15. The mesenteric glands, with the exception of slight redness and elevation in a few cases, were, for the most part, normal; the alteration of these was never either considerable or prominent; in general tuberculization, it is true, they were infiltrated with tuberculous matter, but even then their enlargement could not be felt through the abdominal walls. 16. The peculiarity and frequency of the above-described morbid alterations, and the absence of others known to occur in the next year of life, as typhoid fever and abdominal tubercles, present features of great interest in the pathology of the alimentary canal during the first year of life.

A very excellent paper on the Endemic Gastro-follicular Enteritis, or summer complaint of children, by Dr. E. Hallowell, of Philadelphia, is contained in the *American Journ. of the Med. Sciences*, for July, 1847. The author divides the disease into three stages, based upon its anatomical characters. The first stage usually commences with diarrhœa, succeeded by vomiting, or with vomiting and purging; fever of a remittent type, with evening exacerbations, soon succeeds; the pulse is small, quick, and frequent, occasionally full, sometimes tense; the brain is often affected sympathetically, as manifested by a tendency to delirium; the eyes have a fierce and wild expression; the face is flushed. The stools vary much in consistence; at times thin and watery, often pasty or mush-like; their colour varies in the course of the day, and from one day to another. In many instances they presented the appearance of chopped egg, upon which boiling water has been poured; occasionally they consist almost entirely of mucus. The vomiting usually occurs on the second, but often as late as the fourth or fifth day. Sometimes the disease is unattended with vomiting throughout its course. The matter vomited consists of the ingesta, discharged almost immediately upon their entrance into the stomach, more or less mixed with mucus. In infants at the breast, the milk is usually returned in a curdled state, with an acid smell; in one case which fell under Dr. H.'s notice, it had the appearance of coffee-grounds. The vomiting occurs, for the most part, three or four times a day; sometimes oftener. The skin is occasionally moist, more frequently dry; it is warm upon the head and abdomen; the latter is often decidedly hot, and occasionally tense and tumid, and somewhat painful

upon pressure; the temperature of the extremities is natural, or more generally cool; sometimes the lower extremities are cool, while the upper retain their usual heat. The respiration in uncomplicated cases is free; the number of respirations varying from 20 to 66. When over 30, the respiration is usually more or less interrupted. The tongue is moist, often red at its tip and edges, and coated at its base with a yellowish or brownish-yellow fur. The countenance, except in very violent attacks, is good; eyes bright and animated; occasionally the child falls into a sleep from which it is easily disturbed. Usually there is considerable irritability and restlessness, the child being pacified with difficulty. Thirst is often intense; now and then drink is refused.

The anatomical characters of this first state consist in an undue development of the follicles of both the stomach and intestines, or of only one of these organs, without inflammation of the mucous membrane. Children rarely die of cholera in the early stage; opportunities, therefore, seldom occur of observing the morbid appearances.

The symptoms of the second stage are, a continuance of the diarrhœa; vomiting less frequent than in the first stage; stools vary in appearance, but are more or less bloody, and discharged with pain; there is much restlessness, and the child is observed to draw up its limbs at the time of the discharge. The colour of the stools is usually dark green, like chopped spinach; the colour is occasionally lighter, but mixed with portions of a darker hue, or with lumps of yellow, more or less curdled. They are often of a bright yellow or chrome colour, or of a dark brown or chocolate colour, caused by the admixture of grumous blood. The stools vary in colour in the course of the day, probably from the greater or less quantity of bile and acid in the intestines. The abdomen is usually hot, and more or less tumid and painful on pressure; tenderness of the abdomen, with drawing up of the limbs and bloody discharges, are the most important signs of this stage. The extremities are cool; the pulse is small and feeble, or frequent and tense, and occasionally intermittent. As the disease advances, emaciation progresses; the skin about the neck and thighs hangs in folds; the eyes become sunken, and surrounded by a dark areola; the nose is sharp and the lips shrivelled; the feet become œdematous, and the cutaneous insensibility is so much impaired that flies collect about the face without causing any uneasiness; petechiæ are occasionally observed; the tongue is dry and incrusted, and covered with apthæ, and deglutition becomes more or less painful; the child is often observed to thrust its fingers far back into the mouth, from dryness of the fauces; the appetite becomes greatly impaired, and there is almost constant thirst. Dr. H. saw, in one case, an eruption of minute vesicles upon different parts of the surface of the body.

The anatomical characters of the second stage consist essentially

in inflammation with softening of the mucous membrane, and ulceration of the follicles, more especially of the large intestines. The mucous membrane of the stomach in many cases presents its usual appearance and consistence; in others, it is more or less injected and softened, the softening extending occasionally to all the coats. The lining membrane of the stomach is not unfrequently covered with a layer of whitish opaque mucus, easily scraped off with the handle of the scalpel; the mucous follicles both of the stomach and intestines are more or less apparent; the mucous membrane of the small intestines is occasionally softened, and for the most part pale in the greater portion of its extent.

In one case the lower portion of the ileum presented a brick-dust colour, with alternations of a pale yellow, mottled with red; in some points minute vessels were seen freely inosculating with each other; in other portions, the inosculations were less distinct, the reddish tinge being uniform. In another case, the inflamed portion was of a dull red, or brick-dust colour, minutely injected with red vessels, and in several points, especially upon the surface of the valvulæ conniventes, presented a dotted appearance; it occupied a portion of the intestine four inches in extent from the pylorus. In another case, the duodenum, at its upper portion, presented a slight shade of pink, with a few minute arborizations; and in several other instances there was a slight degree of inflammation, affecting the duodenum at its upper extremity. There was also a slight inflammation of the glands of Peyer in one or two cases, but for the most part they presented nothing remarkable. The small intestines contained a considerable quantity of orange-coloured mucus. The large intestine was more or less inflamed and softened in almost every instance; the inflammation existed in the form of bands, and presented a dotted arborescent appearance; in one case these bands were longitudinal.

In most cases the redness was diffused, with occasional ramifications; in one instance the inflammation occupied the whole extent of the colon; it was of a vivid red throughout, and the membrane was much thickened. From the margin of the follicles, minute vessels were seen to radiate to the surrounding membrane, occupying the entire surface of the intestine, showing that the inflammation commenced in the follicles and extended subsequently to the mucous membrane. The follicles were often found to be more or less ulcerated, the ulcerations sometimes extending as far as the muscular coat; they were more or less numerous, and penetrated more deeply in the rectum than in other portions of the intestine; it was often completely riddled with them. The mucous membrane was more or less softened in the greater number of cases; in one ininstance it was thickened and intensely inflamed. The coats of the intestine were covered with a layer of mucus, sometimes so thick as to diminish considerably its calibre. It ordinarily contained a quan-

tity of grayish-coloured fœces, of the consistence of gruel. In uncomplicated cases the lungs presented nothing remarkable, except a slight engorgement posteriorly. The peritoneum was healthy. The liver was greatly enlarged in only one instance; the gall-bladder was more or less distended with dark-coloured bile; the mesenteric glands, spleen, and kidneys presented nothing remarkable. In nearly all the cases, the veins of the pia mater were more or less distended; the arachnoid was pale and moist, except in one case, in which there was a slight opacity at the base of the brain; there was more or less effusion in the subarachnoid cellular tissue, for the most part limpid; occasionally it presented a whitish, opalescent, or citron-coloured appearance; the pia mater was more or less injected, for the most part confined to the larger ramifications of the vessels; the membrane was easily removed by traction from the surface of the brain; the substance of the brain was natural, excepting in two cases, in which it was injected, in the one at its central, and in the other at both its central and vertical portions; it was softened in four cases; there was little or no effusion in the ventricles; in one case the lateral ventricles appeared quite dry, as if wiped with a cloth.

The symptoms of the third stage are, an unusual disposition to drowsiness or stupor, rolling of the head, and a chewing motion of the under jaw, succeeded by convulsive movements or rigidity of one or more of the extremities, followed by paralysis. When the disease has progressed thus far, it may be considered almost, if not entirely, beyond hope.

The anatomical characters of this stage consist, essentially, in disorganization of the brain from softening of its tissue. The softening is sometimes general, but more often confined either to the cortical or central portions of the brain and cerebellum. It may be to such a degree as to cause the brain readily to give way on slight pressure, or to render it quite diffluent. When cut into, the substance of the brain usually presents numerous red spots from effusion of blood. The pia mater is more or less injected, and its veins much distended. There is also effusion of serum in the subarachnoid tissue, and, to a greater or less extent, in the lateral ventricles.—Sometimes, however, these are quite dry.

Gastro-follicular enteritis may be confounded with tubercular meningitis, or dropsy of the brain. From this it may be distinguished by the frequency of the discharges; in the latter, the bowels are usually torpid: the natural history of the disease is also different. In tubercular meningitis the premonitory symptoms are such as indicate an affection of the brain, occurring, for the most part, in delicate scrofulous children. The summer complaint commences with looseness of the bowels. In tubercular meningitis, the cerebral symptoms predominate in the commencement: it is only in the advanced stages that the summer complaint can be confounded with

this disease, when the patient relapses into a state of drowsiness or stupor. The summer complaint may be confounded with the typhoid fever of children, to which it bears a close resemblance. It may be distinguished from it, however, by the absence of gargouillement, the lenticular spots, the agitation and slight delirium at night, the prominence of the spleen, the more intense character of the fever, continuing beyond the ninth day, and of the sibilant ronchus; all of which are prominent, though not constant, symptoms in typhoid fever.

From gastromalacia, or gelatinous softening of the stomach, the summer complaint may be distinguished by the absence of the violent and persistent vomiting, and the almost exclusive predominance of the gastric symptoms, by which the first-named disease is marked.

While we admit the very valuable contribution Dr. H. has made towards an elucidation of the pathology of one of the most common diseases of children, still we feel persuaded, from an accurate analysis of his observations, that he has included among the cases of cholera infantum some of infantile dysentery—a disease differing from the former in several of its symptoms, and materially in its pathological anatomy.

Notwithstanding the pathology of cyanosis would appear to be pretty well settled, yet the valuable and elaborate paper of Dr. Chevers on the Morbid Condition of the Pulmonary Artery, &c., contains so many interesting remarks in reference to the causes of this affection, that we feel it our duty to include them in our present report.

The opinion now very generally adopted by pathologists, in regard to the cause of the symptoms of cyanosis is, that they depend entirely upon the delay to the passage of the blood through the lungs, resulting from the presence of a fixed impediment to the circulation.

Morgagni appears to have been the first who attributed the intense lividity of cyanosis to obstruction in the trunk of the pulmonary artery. Louis ascribed this symptom to some obstacle to the circulation of the blood through the veins; and MM. Bertin and Berard coincided in believing that the blue appearance of the surface in those affected with abnormal apertures in the cardiac septa depends on the stasis of the blood in the right cavities of the heart, and upon the consequent difficulty with which the venous blood circulates; and, though it be complicated, almost always, with the mixture of the two kinds of blood, still it is not produced by this mixture. The opinion that cyanosis is exclusively due to the circulation of venous blood through the arterial system, has been satisfactorily disproved by Dr. M. Stillé, of Philadelphia.

The results of Dr. Chevers' own investigations are almost entirely

confirmatory of the general conclusions of Dr. Stillé. Cases of cyanosis will very rarely occur, in which the morbid anatomist will fail to discover some organic cause which acts virtually as an impediment to the pulmonary circulation. Dr. Stillé has, perhaps, referred somewhat too exclusively to the right side of the heart and the pulmonary artery as the seats of the mechanical obstacle to the circulation in these cases; for it will occasionally, though rarely, be found that the physical impediment to the circulation exists in the pulmonary tissue, or is even external to the lungs, as in Dr. Marcet's well known case, (*Ed. Med. and Surg. Journ.*, Vol. I., p. 412;) and in some few instances the cause of obstruction is situated either in the left heart, or in the aorta. Still, in every case of cyanosis, there will be found to exist some cause or other which tends essentially to prevent the free and complete circulation of the blood through the lungs, to retard its passage through the venous system, and, consequently, to render the process of its arterialization slow and incomplete.

Dr. Stillé has also argued that obstruction to the pulmonary artery is never found without the concurrence of cyanosis. This is perfectly true, as regards most of the cases of congenital narrowing of this vessel, but it does not hold good in all; for instance, where congenital imperfection of the pulmonary valves does not become seriously obstructive until late in life, the symptoms which it produces are not necessarily those of cyanosis; and Dr. Chevers cites, subsequently, an instance in which extreme narrowing of the pulmonary orifice, the result of endocarditis, occurring at the adult period, was not attended with the slightest appearance of lividity of the surface: in fact, it appears that, for the complete establishment of that generally dilated condition of the entire venous system which attends cyanosis, the obstruction to the circulation must have been present either at or before birth, when the capillary vessels are naturally more capacious than they are in the adult, or it must become confirmed previously to the full development of the body, while the entire vascular system is pliant and dilatable, and is still capable of readily adapting itself to permanent changes in the circulation.

It is, of course, well known that various kinds of obstructive disease of the heart and lungs, occurring in adult life, are liable to produce extreme internal venous congestion, and considerable lividity of the surface; but Dr. C. is not acquainted with any instance in which an impediment of this kind, coming into operation subsequently to the age of twenty-five years, has produced that general and intense blueness of the entire surface which forms the characteristic feature of true cyanosis depending upon congenital malformation of the heart.

In extreme cases of original defect of the cardiac apparatus, such as those in which the ascending pulmonary trunk is obliterated or

absent, the cyanosis appears to be due less to the circuitous course by which the lungs are supplied with blood, than to the unnatural narrowness of the pulmonary vessels, which are almost invariably far less capacious than in the ordinary condition; hence the pulmonary veins and left auricle are usually more or less contracted in these cases, while the lungs are either badly developed and imperfectly expanded, or present the evidences of chronic impediment in the dilated condition of their tubes.

There are still a few pathologists who adhere to the old opinion that cyanosis mainly depends upon the circulation of carbonized blood through the arterial system, insisting upon the fact that, in the great majority of cases of cyanosis, the septa of the heart are more or less deficient. It is now established that cyanosis may exist quite independently of imperfection of the cardiac partitions, or of admixture of the venous and arterial blood; still, Dr. C. apprehends that M. Berard and Dr. Stillé have argued somewhat too exclusively in maintaining that admixture of the two currents has no influence whatever in producing cyanosis, as it appears by no means unreasonable to conclude, that, in extreme cases of this kind, where the impediment to the pulmonary circulation is great, and where a large quantity of venous blood evidently passes into the aorta at every systole of the ventricles, the discolouration of the surface, and especially the lividity of the mucous membranes, which is so frequently observed in these cases, is in part, at least, due to the dark hue and impure condition of the arterial blood. Admitting this, it must be borne in mind that the principal reason why cyanosis is generally present in cases of extensive communication between the cavities of the heart, will be found in the fact, that a cause of obstruction which is capable of preventing the natural closure of the septa, will rarely fail to occasion permanent and severe impediment to the circulation. Where an abnormal opening is discovered in the cardiac apparatus of one who has only lately become cyanosed, or where such an aperture presents traces of recent enlargement, it must not be at once concluded that the presence or augmentation of this communication has occasioned the cyanosis; but the first cause of the disease must be sought for, and this will generally be discovered in the form of some manifest impediment to the circulation which has determined the patency of the opening from birth, and which, having become recently aggravated, has produced the cyanosis at the same time that it has increased the size of the abnormal foramen.

It has been argued by M. Cloquet and Dr. Willis, that when the right and left cavities of the heart are of equal and proportionate strength, no admixture of the arterial and venous blood will occur during their contractions, even although there may exist free communication between the vessels, or through the septa. A few cases have been observed which go far to substantiate the general cor-

rectness of this doctrine; but the instances of extensive malformation of the heart are so few, in which the two sets of cavities are exactly proportioned to each other, or in which the whole of the cardiac outlets are perfectly free from obstruction, that the rule is by no means one that admits of being either extensively or frequently applied.

It is now allowed by the majority of pathologists that, in itself, patency of the foramen ovale (where the opening, though free, is guarded by an efficient valve) is by no means necessarily attended with cyanosis; and it is probable that, where this exists as the principal defect in the cardiac apparatus, the passage of blood through the aperture is ordinarily by no means large, and that the transit of a full stream from one auricle to the other may be merely an occasional occurrence, for the purpose of relieving distension under circumstances of accidental engorgement or obstruction. Still, it is doubtful whether we can fully admit the opinion of Bichat and Louis, that, in examples of septal deficiency, or, at least, except under circumstances of obstruction, for we have seen already, that these deficiences are seldom, if ever, present where there is not also discoverable some cause of permanent impediment to the circulation, which probably at all times occasions a certain degree of comminglement of the currents, although that mixture may not be sufficient to produce serious vitiation of the arterial blood. It is generally found that, when the subjects of the minor degrees of septal deficiency become affected either with pulmonary disease, or with any causes of delay to the systemic circulation, the dyspnœa and lividity of the countenance are greater, and the consummation of the fatal issue is usually more rapid than might have been expected from the extent of the recent pulmonary disease, or from the severity of the other superadded causes of obstruction, had these existed alone—facts which go far to corroborate the belief, that in cases of permanence of the septal openings, there generally exists some fixed impediment to the circulation, although that impediment may not be sufficient to produce any visible ill consequences while the heart is tranquil, and the lungs remain free from congestion or other superadded lesion.

It is a demonstrable fact, that there may constantly occur considerable commixture of venous with arterial blood, and yet the individuals may be well nourished and active, and may arrive at maturity without ordinarily presenting sufficient blueness of the surface to attract the attention even of a medical man. In other instances of this kind, the patients may continue for many years to enjoy tolerable health, being only occasionally liable to more or less lividity of the surface, either with or without a certain amount of dyspnœa, occurring in consequence of extraordinary exertion, repletion, or transient causes of pulmonary obstruction. Here the intensity of the cyanosis can never be taken as an indication of the

degree of abnormal communication which exists between the cavities of the heart.

In either of the above sets of cases, the symptoms of cyanosis may become permanently developed, in their greatest intensity, whenever additional and permanent obstruction occurs to the passage of the blood through the lungs, or immediately the muscular power of the heart becomes seriously impaired. Instances of considerable malformation of the heart occasionally occur, in which cyanosis does not appear until the age of puberty, and others have been observed where the lividity of the surface, which had occasionally presented itself from birth, did not become permanent until a rather advanced period of life. In the former of this class of instances, the increased impediment is probably due to a want of that development of the pulmonary apparatus which usually takes place at the approach of the adult age; in the others, it may be traced to additional narrowing or other consequences of acquired disease in the malformed structures, causes which are probably further aggravated by plethora, and by a certain amount of deterioration of the lungs.

Allusion has been already made to the influence of contraction of the foramen ovale and arterial duct in producing the first symptoms of cyanosis in children who are the subjects of congenital cardiac defect. It does not usually appear that such defect necessarily interferes with the health of the infant so long as its system is freely supplied with placental blood; but so soon as respiration and the organic changes which accompany the commencement of that process become established, the malformed heart fails to perform with facility functions for which its structure very imperfectly adapts it, and the evidences of severe obstruction are quickly developed; these are, in all probability, also, aggravated by the increased bulk of the fluids, which is produced when the process of assimilation commences.

M. Depaul (*Journ. de Chirurgie*, May, June, 1845) has published a very elaborate paper on the subject of artificial respiration, as a means of resuscitating still-born children. He instituted a series of experiments on the dead subject, with the view of determining the amount of danger of injuring the lungs by the insufflation of air.—He satisfied himself that this danger is almost an imaginary one, since, even after the lungs were removed from the body, it required several most forcible insufflations, far stronger than would ever be made in the case of a still-born child, to produce rupture of the pulmonary vesicles. On the other hand, he was struck with the great force required thoroughly to inflate the lungs, while their resilience was sufficient to expel the greater part of the air. He found, besides, in many cases where children had died suddenly after breathing for several hours or days, no other morbid appearance than an

unexpanded condition of a large portion of the lungs. With reference to the mode of practising artificial respiration, he condemns the mere blowing into the mouth as inadequate, and recommends the use of a tracheal tube. He is of opinion that there is more danger of failing from imperfect insufflation than of doing harm by its too forcible performance. It is of importance, likewise, that it should not be suspended on the first sign of breathing, but be continued until the child cries loudly and respires well.

Dr. Klencke, in his work on scrofula, directs attention to the important deterioration which the milk of stall-fed cows undergoes, and is inclined to attribute the production of scrofula in children, in many instances, to its direct transmission through the medium of that fluid. Although the direct production of scrofula by the contagious properties of the milk is assumed rather than proved in the work of Dr. K., still the fact is very important, that stall-fed cows, especially those kept in small confined stables in large cities, and nourished chiefly upon the refuse of the still-house mash-tub, often become tuberculous, and that this milk loses much or even the whole of its sugar; that the butter and casein diminish, while albumen is found, sometimes in as high a proportion as 15 per cent., and olein in the proportion of 1-4 per cent.; and that in some cases lactic acid is likewise present.

In a well written paper (*Journ. de Med.*, 1845) on the subject of Diet in Children, Dr. Marotte draws attention to the error often committed in placing infants on a spare diet, who have been observed not to thrive at the breast, but to suffer from diarrhœa, and to lose flesh. The proper means of cure consist in obtaining a wet nurse for the child, and thus providing it with a food more, instead of less, nutritious. Many instances of gastro-intestinal disorder during childhood depend, in Dr. M.'s opinion, on the want of a more highly animalized diet. It is, therefore, as a general rule, not proper to dilute the milk of the herbivora, too often already poor in animal constituents; while in those cases where it is necessary to supply a deficiency in the nutritive qualities of the nurse's milk, chicken or other meat broth, either alone or mixed with milk, should be used for that purpose.

Extraction of Urinary Calculi by a Novel Method.

Dr. Parrish exhibited a specimen of round white calculi, varying in size from a pin's head to a small pea, which had been extracted from the bladder through the eye of a simple flexible catheter of medium size. The whole number withdrawn in this way was about forty, two or three coming away at a time, and generally without pain.—As the case furnished some points of unusual interest, Dr. P. stated the history of it, as derived from the patient himself; whose views as to the manner in which these calculi were formed, as well as to the proper method of extracting them, are novel and interesting.

The patient, William Hembel, Esq., President of the Academy of Natural Sciences, is well known to many of the Fellows as a gentleman of varied scientific acquirements, who, although not one of our profession, has devoted much time to medical investigations.—He is now past eighty years of age, and has been for some years more or less subject to attacks of painful and difficult urination, from an enlarged prostate gland; this distressing malady has, within the past eighteen months, been considerably aggravated, so that he has been obliged to rely altogether upon the use of the catheter in evacuating the bladder.

In the early part of the present year he suffered to an intense degree, and did not derive the accustomed relief from the use of instruments. The urine was highly ammoniacal, and deposited a large quantity of ropy mucus. In this condition it occurred to him, that a considerable portion of acrid urine, mixed with mucus, must settle down in the bas-fond of the bladder, beyond the reach of the catheter, as ordinarily introduced; and hence that only a portion of its contents was evacuated, the rest remaining behind as a source of renewed irritation. A reference to the anatomical arrangement of the parts confirmed this view, and induced him to resort to a simple expedient to remedy this difficulty. The catheter was introduced by the patient himself in the erect position, and all the fluid contents of the bladder evacuated through it; but, before withdrawing it, the body was bent forward, and the free extremity of the catheter slightly elevated, so as to throw the point of the instrument into the portion of the bladder below the symphysis pubis, at the same time that the palm of the hand was placed between the thighs, in order to allow the fingers to press upon the perineum: gentle motion was now made upon this part, with a view of elevating the depending portion of the bladder, and of thus throwing the mucus which might have settled there, into the eye of the catheter.

By thus striking the perineum, ropy mucus, having an ammoniacal odour, was discharged in considerable quantity, to the great relief of the patient, and fully confirming the correctness of the course adopted. This expedient was successfully resorted to at the close

of each operation with the catheter, a portion of mucus always appearing after the urine had been evacuated. It was on one of these occasions that the patient discovered on withdrawing the catheter, that it was blocked up with several small round calculi, which had been thrown into the eye of the instrument, and were thus readily withdrawn without pain. In this way, the whole number of calculi have been at different times extracted; and on only one occasion did any suffering follow; this was occasioned by the calculus being too large to pass within the eye of the instrument, thus presenting a rough surface to the passage, and causing slight laceration of the urethra with some hemorrhage.

By continuing this plan of emptying the bladder, the irritation of the organ was greatly lessened, the urine improved, and the mucous discharge gradually diminished, leaving the patient in a more comfortable condition than he had experienced for many months. He now believes himself entirely clear from the calculi, and enjoys comparative exemption from suffering, with improved health.

It is evident that the process above described, could not be accomplished with a silver catheter, or with the body in an erect position.

The practical deductions which our venerable friend draws from experience in his own case, may be thus summarily stated:

He believes that much of the suffering attendant upon the disease, (enlarged prostate) may be caused by the presence of irritating matters, which, from gravity, settle in the concavity of the viscus below the symphysis pubis, and out of the reach of the catheter when introduced in the ordinary way; this mucous secretion, if allowed to remain, forms a vehicle for the collection of solid particles deposited from the urine, and for the formation of calculous concretions. Calculi thus formed, may exist for a long time unsuspected, thus aggravating the spasms of the neck of the bladder, and increasing the incontinence of urine to a great degree. Hence, it is important, in all cases of enlarged prostate, attended with painful urination, thoroughly to evacuate the bladder, either by frequently washing it out, or by the process found so successful in the case now related. To accomplish this, the gum elastic catheter must always be employed, while the position of the body, together with the pressure upon the perineum, in the manner indicated, will be found indispensable to success. The accidental discovery of calculi in the catheter in the present case, seemed to point out the practicability of this method of extracting them, in the early period of their formation, and thus, of preventing a painful and dangerous operation, which might be rendered necessary, if this simple expedient were not adopted.

Should subsequent observation confirm the above views, it must be admitted, that an important addition will have been made to our means of treating one of the most painful diseases to which man is

liable, a malady which often renders the latter period of life a season of sorrow and anguish, and causes its victim to look forward to death, as a welcome messenger.

Dr. Condie made a statement in reference to the prevalence of measles as an epidemic in the southern districts; the cases he had seen were of a mild and very manageable character. He also called the attention of the College to the fact that the small-pox had again made its appearance in Philadelphia. He remarked that its introduction on the present occasion was attributable to foreign immigrants, many of whom, labouring under the disease, together with their foul and infected clothing, had been, both surreptitiously and openly, in direct violation of the provisions of the Health Law, introduced into the city. He had seen the first cases which had appeared amongst us; they occurred in newly-arrived immigrants, and among the inmates of those houses in which immigrants, labouring under or convalescent from the disease, had put up upon their first arrival from on shipboard. The cases were as yet few, but he feared that it would spread throughout the labouring portion of the community.

Dr. C. D. Meigs stated that he had received a letter from Dr. Hatch, of Connecticut, giving an account of a female, who, whilst labouring under, what was esteemed, an irreducible inversion of the uterus, became pregnant, and was delivered, at the full term, of a living child.

Dr. Moore remarked, that for some time past he had been convinced of the injurious effects upon the health of young children resulting from the system of school discipline pursued in many of the public and private seminaries of this city. He alluded, more especially, to the holding of but one session a day. By this arrangement the children were subjected to a confinement of from four to five hours, with little or no intermission, often in small, overheated, and badly ventilated apartments. In children who are thus deprived of an adequate amount of out-door exercise, while their minds are taxed much beyond their powers, he was well convinced, from much reflection and considerable personal observation, a train of morbid symptoms are frequently induced, which are in many cases, of considerable severity, and having a tendency to impair the future comfort and usefulness of the little sufferers. Undue confinement and too protracted application of the mental powers in childhood, would invariably, he was convinced, if it did not produce positive disease and suffering, impair the health and vigour of the system, and render it more liable to the influence of those morbid influences to which it should be accidentally subjected.

Dr. Moore did not know whether the opinion of the Fellows

corresponded with his own upon this subject, nor had he made up his mind as to what action would be proper on the part of the College, in order to direct the attention of parents and teachers to the evil alluded to, with a view to its abatement.

Several of the Fellows presented their views upon the subject, which, in the main, corresponded with those of Dr. Moore; when, on motion, it was

Resolved, That a Committee be appointed to inquire into the influence exerted upon the health of children by the present system of discipline pursued in the schools of this city, and report in relation thereto at an early meeting of the College.

The following were appointed the Committee; Drs. J. W. Moore, I. Parrish, S. Jackson, Henry Bond, and J. D. Griscom.

In conformity with the 3d Sect. of Art. III. of the By-Laws of the College, the Vice President, acting in the absence of the President, appointed the following as the Standing Committees for the ensuing twelve months:

On the *Library*, Drs. West, Pepper, and Reese.
Public Hygiene, Dr. Bell.
Theory and Practice of Medicine, Dr. Coates.
Surgery, Dr. Norris.
Midwifery, Dr. Griscom.
Diseases of Women, Dr. Rodman.
Diseases of Children, Dr. Hallowell.
Materia Medica, Dr. Carson.
Meterology and Epidemics, Dr. Emerson.

Stated Meeting, July 4th, 1848.

Dr. Meigs, Vice President, in the chair.

Present, fifteen members.

The Censors reported that they had examined the accounts of the Treasurer of the College, with his vouchers, and found the same to be correct.

The Committee appointed to confer with a Committee of the Philadelphia College of Pharmacy, reported progress, and was continued.

The Committee on the subject of School Discipline reported progress.

Agreeably to the directions of the Charter, the College proceeded to an election for officers for the ensuing twelve months, when the following were duly elected:

President,

GEORGE B. WOOD, M. D.

Vice President,

CHARLES D. MEIGS, M. D.

Censors,

HENRY BOND, M. D.
J. WILSON MOORE, M. D.
SAMUEL JACKSON, M. D.
GEORGE W. NORRIS, M. D.

Secretary,

D. FRANCIS CONDIE, M. D.

Treasurer,

J. RODMAN PAUL, M. D.

The Committee on the Library presented their annual report as follows:

The Library Committee beg leave respectfully to report that:

By direction of the College, the book-cases are now left accessible to the Fellows; with the distinct understanding, however, that no book, periodical, or pamphlet shall be taken from the Hall without permission of the Librarian. It is absolutely necessary that this rule should be strictly observed by the Fellows, since it would otherwise be impossible for the Library Committee to charge themselves with the safe keeping of the books and other property belonging to the Library of the College.

It is feared, however, that the above rule has not always been complied with, or your Committee in collecting together, recently, the various periodical publications, for the purpose of having them bound into volumes, would not have had the mortification of finding, in more than one instance, the annual series of several valuable journals incomplete. It may be that the missing numbers were never received by the College, but upon this point, your Committee cannot speak positively. The periodicals are not received directly

by the Committee on the Library, but come into their hands through the Publication Committee, or rather, are placed by the latter, as they are received, upon the table of the College. This, of course, is the most appropriate channel through which these publications, sent as they are, to the College, *in exchange* for its "Summary of Proceedings," should come; but it precludes the possibility of their regular receipt being vouched for by the Library Committee, who can only charge themselves with *endeavoring* to preserve such of them as may be found upon the table.

The Exchange list of the College embraces, it is believed, all the Medical Journals of the country, (18 or 20 in number.) The volumes of periodicals, which have been recently bound by order of the College, are deposited on the shelves of the Library. The imperfect sets, which it is to be much regretted, are so numerous, have been properly taken care of, and so arranged that, in the event of the missing numbers being hereafter supplied, they may also be properly bound in volumes.

Several additions of books, by donation and otherwise, have been made to the Library within the past year.

Since the last report of the Committee, the "Medical Examiner" of this city, has been regularly sent to the College.

The publications of the Sydenham Society of London continue to be received.

On behalf of Library Committee,
Francis West, *Chairman.*

Dr. C. D. Meigs detailed the following case of pseudo-membranous laryngitis, in which the operation of tracheotomy, performed at an advanced stage of the disease, was followed by complete recovery.

A child four years of age becoming affected with difficult and noisy respiration, was placed under the care of a homœpathic practitioner; the parents having lost already a child from croup, recognised in this, the same symptoms as were observed in the former case, and suggested to the medical attendant, that the child was labouring under that disease, but this he declared was not the case, but rather thought that the attack would turn out to be one of measles. The child, however, grew worse and worse—no eruption appeared upon the skin, and at the end of two weeks, the respiration having become increased in difficulty and attended with a distinct croupy sound, while the voice of the child was nearly extinct, the parents became alarmed and sent for Dr. Meigs. His son, Dr. J. F. Meigs, immediately saw the patient, and found it in an advanced stage of genuine membranous croup, attended with symptoms of the most violent character; an extensive deposition of membranous matter appeared to have taken place, and the case was looked upon as

almost hopeless—with the view however, of affording, if possible, some relief to the extreme difficulty of breathing, the Doctor directed the application of five or six leeches to the throat on each side of the trachea. Dr. C. D. Meigs now saw the child, and considered it to be in the most imminent danger. The croupal symptoms were intense. Upon auscultation, not the slightest respiratory murmur could be detected in any part of the chest, giving the idea of an individual labouring under complete hepatization of both lungs. The air passed into the lungs with the greatest difficulty, the respiratory effort being prolonged to an extent beyond what the Doctor recollects to have ever before witnessed. The child was extremely restless, its head was thrown back upon the spine, and every moment strangulation seemed imminent. A half ounce of powdered alum was directed, and one drachm of it given to the child at intervals of twenty minutes, until emesis was produced, which did not occur until after the fourth dose. This was rather an uncommon occurrence, vomiting being generally produced by a single dose of the alum; it evidently indicated a torpid state of the nervous mass, the result of the great change produced in the blood, in consequence of the imperfect performance of the respiratory function. No nausea or prostration followed the action of the emetic.

Early the next morning found the child labouring under the most distressing difficulty of respiration; the surface, and particularly, the face, lips, and tongue, were of a blue colour, and nearly all the symptoms of a state of asphyxia were present. Dr. M. considered that death was inevitable, but still, the operation of tracheotomy, though a forlorn hope, presented itself as the only possible means of relief. This was stated to the parents, who consented that it should be tried; accordingly, at 11 o'clock the operation was performed by Dr. Pancoast. After laying bare the trachea, he divided the second, third and fourth cartilagenous rings; immediately upon opening the trachea, a discharge took place of mucus, mixed with blood and portions of plastic lymph. In forty seconds, the child breathed with great freedom. Instead of inserting a tube in the usual manner, through the opening into the trachea, Dr. Pancoast secured the open state of this, by cutting from the trachea, an elliptical portion of cartilage, thus leaving an oval opening into the tube somewhat larger than that of the two nostrils; while the edges of the incision through the soft parts, were kept asunder by a leaden wire, which passing around the neck, had the hooked ends of its two free extremities inserted on each side of the wound. The next day the child was up and running about. In a few days, the edges of the incision in the neck were brought together, the wound rapidly healed, and the child, within a surprisingly short period, recovered perfectly, without a single disagreeable symptom occurring.

Dr. Parrish related the history of a case of membranous croup of a severe character, and attended with all the symptoms of approaching death, which recently recovered under his care, without an operation for tracheotomy.

The patient was a child of eighteen months old, which was attacked with what was supposed to be an ordinary catarrh, attended with a harsh dry cough. Simple domestic remedies had been administered for several days without effect, before the Doctor was sent for.

When the patient was seen by him, the cough was "croupy," and the breathing obstructed to an alarming extent. On looking into the fauces, the whole back part of the throat was found lined with a thick, tenacious secretion. An emetic of 2 grs. of turpeth mineral was immediately administered, which operated promptly, but without relief. Calomel, grs. v, was administered, to be followed by castor oil in a few hours. After the operation of the purgative, there was still no decided relief; the turpeth mineral emetic was continued regularly every four hours, and the calomel in small doses every two hours, for several days; but the disease steadily progressed; no discharge of membrane having been induced; the breathing became more distressing, and finally, the child was unable to cry; the cough was dry, and less developed, and the bronchial tubes appeared to be rapidly filling up. At this stage of the complaint, injections of assafœtida and laudanum were given every four hours, solely with a view of assuaging the sufferings of the child, and all other medicines were suspended. The full effect of the opium was induced, and the jactitation and restlessness diminished, though the breathing continued as bad as ever. The child lay upon the pillow with the head thrown back, and was several times supposed to be dying, from the violence of the paroxysms of dyspnœa. The Doctor left late in the evening, with directions to continue the anodyne, expecting to find his patient dead in the morning. On the morning visit, he was surprised to find, that the paroxysms of extreme difficulty of breathing, had been less frequent, and that the child had slept with comparative comfort, though the respiration was still exceedingly laborious. It was found that a discharge of thick yellow mucus had begun to issue from the nostrils during the night, and on examining the throat, it was evident that the membrane lining the fauces was loosening. The bowels had also been freely moved with copious yellow dejections.

This state of things afforded encouragement to resume the use of turpeth mineral, which acted promptly, bringing away large quantities of thick, yellow mucus, to the great relief of the infant, who, from this time, went on improving, and recovered rapidly.

Dr. P. had no expectation of accomplishing any permanent good by the use of the anodyne in this case, believing that the mechanical

obstruction of the trachea and bronchial tubes must inevitably destroy life. It becomes a question, however, how far the dyspnœa in cases of membranous croup, may be the result of nervous spasm, as well as of a mechanical impediment to the passage of air into the lungs. It is evident, that the dyspnœa is, to a certain extent, paroxysmal, and it is also true, that in many cases where death has occurred, the accumulation of membranous deposit in the air passages, as discovered on a post-mortem examination, has not been sufficient to produce strangulation from mere mechanical obstruction. By keeping, therefore, the system under the influence of antispasmodics and anodynes, in addition to remedies calculated to arrest the inflammation, may we not gain time, and enable the latter to have their full effect in arresting the disease, and in producing softening of the membranous deposit?

The Doctor believed that in the management of this intractable malady, we have neglected too much the use of this class of remedies. He would also take this occasion to express his satisfaction with the action of turpeth mineral as an emetic in croup. He had used it on several occasions, since it had been so warmly recommended to the College in the communication of Dr. Hubbard of Maine, and had been highly pleased with it. It acts promptly and powerfully, without leaving behind it the depressing effects of the antimonials.

The emetic may be repeated at short intervals, and continued, as in this case, for many hours, without the risk of alarming depression.

Dr. Jackson, so far from considering such articles as would produce emesis, without causing any direct depression of the vascular action, as those best suited to the treatment of a violent case of croup—would say, that in the first stage of the disease, a depressing effect was to be desired; venesection, even to the extent of inducing fainting, and the free use of tartar emetic, are, in his opinion, at the onset of the disease, our most important remedies. Gentlemen might speculate as much as they pleased about the specific character of the affection of the larynx and trachea in this disease; he was fully convinced that it was inflammatory, and that the inflammation often extended throughout the whole extent of the trachea, and even into the bronchi; that to reduce promptly the inflammation of these parts, was the best mode of preventing the formation of the pseudo-membranous exudation, and of saving the life of the patient. This conviction was not the result of theory, but of much personal experience. In the second stage of the disease, he was willing to admit, that the turpeth mineral, and similar remedies, which have the effect of producing a discharge of mucus, and probably of facilitating the detachment and expulsion of the pseudo-membranous exudation, without causing any very decided depression, were the remedies demanded, and would often,

even under very unfavorable circumstances, produce a marked amelioration of all the more distressing symptoms.

Dr. Page would inquire of those conversant with the morbid pathology of croup, what was usually the extent of the pseudo-membranous exudation; what was its consistence and thickness. He had presumed from the statements of authors, that the exudation in croup, was a thick, firm, membraniform substance, forming, as it were, a cast of the trachea, and yet in the only case in which he had an opportunity of examining with care, the condition of the larynx and trachea after death, it occurred only in very thin detached patches, between which there occurred a thick, tenacious, muco-purulent substance, easily scraped off, and having nothing of a membranous appearance. So small was the membrane in extent, he was unable to account for the extreme difficulty of respiration, on the supposition that it was dependent upon the presence of the exudation in the larynx and trachea.

Dr. Condie believed that the description given by Dr. Page of the appearances detected after death, in the case alluded to by him, would apply to the generality of cases of croup, in which death takes place at an early period of the disease; when death occurs in the second stage, the whole of the mucous surface of the larynx and trachea is often completely covered with a pseudo-membranous exudation, sometimes of considerable firmness. We have numerous accounts of this membraniform exudation being discharged by vomiting—extracted through an opening made into the trachea, during life, or removed from the latter after death, in the form of a tube presenting the shape of the trachea and bronchial divisions; cases of this kind the Doctor believed, however, to be rare. He did not suppose that the paroxysms of intense dyspnœa were produced by the presence alone of the pseudo-membranous exudation, they were evidently dependent upon a spasmodic affection af the glottis.

In regard to treatment, Dr. Condie would place his chief reliance, in cases of genuine croup, upon direct depletion, emetics, and calomel. Although he is convinced that in a very large number of cases, the disease popularly denominated croup in this city, is not pseudo-membranous laryngitis, but either simple acute laryngitis, or sub-acute laryngitis with spasms of the glottis; and it is upon the results of the treatment in this latter affection, that the opinion of very many of our physicians has been formed, in regard to the remedies best adapted for the arrest of genuine croup:—still, his experience has taught him, that in pseudo-membranous croup, as it occurs in this city, blood-letting in the early period of the attack, is an all-important remedy, and that when properly timed, carried to a sufficient extent, and followed by full doses of tartar emetic and calomel, and repeated immersion in the warm bath, it will not

unfrequently effect the cure of the disease. The facts that have been recently adduced in favour of the application of a strong solution of nitrate of silver to the larynx, would appear to recommend this means strongly to our notice, as a most important item in the treatment of croup. That, by proper instruments, and a little dexterity, soon acquired by practice, the solution may be applied directly to the larynx, Dr. C. has fully convinced himself.

After the disease has reached its second stage, our chief hopes are to be placed upon such emetics as operate promptly, without producing much nausea or exhaustion, as the alum, the subsulphate of mercury, and sulphate of copper. It is probable that the application of the nitrate of silver may still be productive of good effects, particularly if it has not been fully tried in the first stage. Dr. C. confesses, however, that when the disease has reached its second stage, his own experience would lead him to place but little hopes upon the powers of any course of treatment to prevent a fatal termination. It is probable that tracheotomy may occasionally succeed; as in the case related this evening, and in others which have been published, it has certainly saved the life of the patient when performed at an advanced stage of the disease, and apparently under the most unfavourable circumstances. When the particular cases of croup and the period of the disease to which the operation is best adapted, shall be more positively ascertained, it will become, he believed, the means of reducing considerably, the mortality of the disease.

Dr. C. D. Meigs has seen a case of croup in which the false membrane had the form of a hollow tube of the shape and diameter of the trachea, with the bronchial ramifications. He has still in his possession the preparation. The Doctor did not consider that the whole of the difficulty of respiration, and the death from asphyxia were the results solely, of the membraniform deposit upon the surface of the larynx and trachea, though this was often of considerable extent and thickness; there was no doubt, a still greater impediment to the function of respiration, caused by the extensive infiltration of the submucous body and cellular membrane, which he presumes will be found to be present in all severe attacks of the disease.

Dr. Parrish stated that he had a pathological specimen, in which the pseudo-membranous exudation lined completely the trachea and bronchial ramifications.

Dr. Griscom called attention to the prompt relief which is frequently produced by anodynes in cases of dyspnœa from extensive disease of the heart. He believes that there is something analogous between the dyspnœa in these cases and that of croup; hence be-

lieves that in the advanced stages of the latter, anodynes will also be found to be of advantage.

Dr. C. D. Meigs related the case of a lady between 35 and 40 years of age, pregnant with her first child, and near her term. She was labouring under the most intense difficulty of respiration; was unable to assume the recumbent position without danger of suffocation. Her countenance exhibited the utmost anxiety, and her pulse was feeble and irregular. Upon a minute examination of the case, the Doctor determined it to be a case of disease of the heart, with serous effusion into the right pleura. The patient died during the night of the same day upon which he visited her. Upon examination of the chest, the lungs were found to be perfectly healthy; in the right pleura were contained about three pints of serum, and a quantity was also contained in the sac of the pericardium. Ossific deposits were detected in the semilunar and mitral valves. The left side of the heart was hypertrophied, and the ventricle enlarged; the right auricle and ventricle formed an enormous sac. The case was related from a conviction that if the fluid had been evacuated, by means of a trochar introduced into the right pleural cavity, the urgency of the symptoms under which the patient laboured might have been relieved, and her life prolonged. So well convinced is Dr. M. that such would have been the effect of the operation, that, were a similar case again to occur to him, he certainly should urge its performance.

Dr. Bache stated, that whilst walking in the street, he was called into a store to see a child who, it was said, had swallowed a portion of tin. The child was crying violently, had some slight difficulty of breathing, and had discharged a portion of bloody sputa.—On examining the throat, he had at first some doubts as to the presence of any foreign body, but on introducing his finger far back into the fauces, detected the edge of the piece of tin at the upper part of the œsophagus. Having with him no appropriate instrument to extract it, he curved, by means of a common vice, the point of a straight dressing forceps, and placing one of the wooden pins used to attach clothes, when drying, to the line, between the teeth of the child, succeeded in seizing and bringing away a disc of tin of about an inch in diameter. The patient experienced no unpleasant symptoms, and was soon able to play as usual. The Doctor did not relate this case as one possessing any peculiar features, or any novelty in its management, but to show how readily suitable instruments may be extemporaneously devised upon any emergency.

Stated Meeting, August 1st, 1848.

Dr. Meigs, Vice President, in the chair.

Present, nineteen members.

Dr. J. F. Meigs presented to the Library a copy of his work, entitled "A Practical Treatise on the Diseases of Children."

Dr. C. D. Meigs related the particulars of a case of parturition occurring in a female labouring under stricture of the vagina. On the 11th of April, 1845, the patient was delivered of her second child, and soon after was seized with fever, attended with some peculiar symptoms, which were found to result from a retroversion of the uterus that had occurred before the uterus had become entirely reduced to its normal size and condition after parturition.—During the remainder of 1845, and the whole of the ensuing year, the patient remained in tolerable health; early in 1847, she began to complain of pelvic pain, attended with some discharge from the vagina. She at first declined submitting to an examination to enable Dr. M. to ascertain the condition of the uterus and vagina.—Her symptoms, however, increasing, she permitted finally the examination to be made: the neck of the uterus was found to be in a condition which induced Dr. M. to suppose, at first, that it was carcinomatous, but on resorting to the speculum, he ascertained that the neck of the uterus was the seat of an extensive ulceration, which did not appear to be of a malignant character. The superfices of the ulcer were equal to that of the fingers of one hand; there was considerable thickening of the parts affected, and portions of the surface were removable in the form of scales. It was treated by the nitrate of silver, but without any benefit resulting; the acid solution of the nitrate of mercury was substituted, and under its use the ulcer healed rapidly, and the general health of the patient soon improved, and became pretty well reëstablished by the time the ulcer was entirely cicatrized. As the ulcer healed, however, a very considerable contraction of the upper portion of the vagina took place, by which its cavity was reduced in diameter to that of an ordinary silver pencil. By the first of January of the present year, the lady became pregnant, and about the 10th of July labour pains were experienced. In an examination, to determine the condition of the vagina and os uteri, it was with the greatest difficulty Dr. M. succeeded in introducing his index finger through the stricture. Opiates, rest, &c., were resorted to in order to keep off the labour. On the 20th of the month, the patient had very severe pains; the membranes, which were uncommonly tough, were gradually protruded beyond the vagina. All the means calculated to produce a relaxation of

the vagina were resorted to; sulphate of morphia was administered by the mouth; the patient was immersed in a warm bath; mucilaginous fluids were injected into the vagina; and the strictured portion freely anointed with an ointment containing extract of belladonna. The vagina was finally dilated by the advancing head, and on the morning of the 21st the child was born, without instrumental assistance.

Dr. Norris read the following

BIOGRAPHICAL NOTICE
OF
DR. JACOB RANDOLPH.

In obedience to the appointment which the College some time since judged fit to confer upon me, I appear before you this evening to pourtray the professional character of one of our esteemed late Fellows; and, though I could have wished the task had been assigned to hands more apt, will endeavour, without eulogy, faithfully to perform it. The life of a practitioner of medicine is, in the majority of instances, a life of labour, of personal sacrifices, and, too frequently, one of sadness and discouragement; it passes silently away, affording events but rarely to call forth either uncommon actions or brilliant displays, and offers, consequently, but few materials for the narrative of the biographer. It is, however, always interesting and instructive to look back upon the career of those in our profession who, in entering upon the race, have reached the goal; to trace their slow progress to eminence, and the difficulties they have surmounted; to note the different posts of honour they have attained; to record their virtues, and point to that distinction among good men which unobtrusive merit and an upright course may ultimately reach.

Like most medical biographies, the one I am about to give is devoid of stirring incident, though it furnishes matter of interest of the kind alluded to; and if, by any chance, it should be the means of recalling, to the friends of his own age, any of the many excellencies possessed by the deceased, or of stimulating any younger one to perseverance in an honourable career, the ends of this College will be gained, and the pleasing task which has been incurred in compiling it fully rewarded.

The family of Fitz-Randolph, consisting of three brothers, emigrated from England to this country in very early times. One of them settled in Virginia, another in New England, and the third, the great-grandfather of the subject of this notice, fixed himself at Perth Amboy, in New Jersey. His grandson, Edward Fitz-Randolph,

who dropped the first part of the family name, warmly espoused the cause of American Independence, and served during nearly the whole period of the Revolution as an officer in the fourth Pennsylvania regiment, commanded by Col. Richard Butler, which formed a part of Wayne's brigade. With his regiment he was engaged in the battles of Trenton and Princeton; he commanded the outlying guard at the surprize and massacre of Paoli; partook of the miseries of the winter encampment at Valley Forge, and was in the battles of Germantown and Monmouth. After the termination of the war, he took up his residence in this city, where he entered into mercantile business, and died at an advanced age, a well known member of the religious Society of Friends. Jacob Randolph, the subject of this brief memoir, was his sixth son, and was born in Philadelphia, November 25th, 1796. Early in life he was sent to the Friends' School on Fourth street, and there was taught the customary branches of an English and classical education. On the completion of his scholastic course in 1814, he commenced the study of medicine under the direction of Dr. Joseph Woollens, of the Northern Liberties; but this gentleman dying during his pupilage, he afterwards entered the office of Dr. Cleaver, who at that time enjoyed an extensive practice and reputation in the same district.

In 1817, at the age of twenty-one, after passing through the prescribed course of medical studies, he received the degree of Doctor of Medicine at the University of Pennsylvania. Sometime after graduation, he was made surgeon to a ship bound to China, but in consequence of severe and protracted suffering from sea-sickness, he left the vessel in England, where she first stopped, and after a visit of some months, passed principally in Scotland and France, returned home. Soon after his return, Dr. Randolph established himself as a practitioner, and, I am informed, at this period of his career, showed no particular inclination for that branch of medicine in which he afterwards became distinguished. In 1822 he married Miss Physick, daughter of Dr. Philip Syng Physick, and it was at this time, after the lapse of the first few years of tiresome novitiate, which nearly all who enter upon the duties of our profession must pass, that he appears to have determined upon devoting himself to the practice of surgery.

To this course it is not improbable he may have been urged by Dr. Physick, who soon perceived his aptness for that department, and the ability which till then had remained dormant in him; and predicted for him to his friends, should he pursue it, a brilliant success. In the learned professions instances are not rare in which natural endowments have been either misdirected, or remained hidden on the first entrance into active life; and in medicine, fondness for a particular branch of that science, or some accidental circumstance in which the individual is thrown, has often placed him upon a road different from that first travelled, and led rapidly to distinc-

tion. Success in these cases is to be accounted for by reason of the mind, already stored with the necessary elementary knowledge, being allowed to follow its natural bent, or being forced by the circumstances in which it is placed, untrammelled by extraneous matters, to direct itself to a single purpose, and study closely and unfold the subject which may be opened to it. Be this as it may, we find Dr. Randolph, at the age of twenty-six, when already possessed of the necessary prerequisites, together with the knowledge afforded by some attention to foreign hospitals, and afterwards matured by a two years' practice among the inhabitants of the lanes and alleys of our northern district, now devoting himself, for the first time, in a particular manner, to surgery. And this study being once commenced, with the daily instruction derived from his familiar intercourse with so eminent a master as Physick, and with such opportunities for observation as that gentleman's extensive surgical practice offered, he soon rose into notice, and realized the anticipations of future eminence which had been formed for him.

In 1830, he received the appointment of Surgeon to the Alms House Infirmary, and in that school an ample opportunity was afforded to him for experience, and for practically perfecting himself in, and exhibiting his powers as an operative surgeon.

In the same year, Dr. Randolph became associated with several other medical gentlemen in an institution for summer teaching, called the School of Medicine, and first appeared as a lecturer on Surgery. At this period, I am assured, by one who knew him well, he was an impressive and agreeable lecturer, and exhibited that skill and ability as a teacher in all the practical details of his branch, which not only indicated future success, but which subsequently placed him in a prominent position among the surgeons of the country. With the School of Medicine he continued to be connected till its dissolution, and the duties of surgeon to the Infirmary he faithfully discharged for several years. In 1835, on the resignation of Dr. Hewson, Dr. Randolph was elected one of the surgeons of the Pennsylvania Hospital, a post which he retained at the period of his decease; and in the last year of his life was made Professor of Clinical Surgery in the University of Pennsylvania.

In 1840, he revisited Europe, and being desirous of availing himself of the opportunities which the hospitals of Paris offered for observation and improvement, he preceded his family by some months, in order the better to benefit by their inspection. While in Europe, he was elected Professor of Operative Surgery in the Jefferson Medical College, which appointment he declined, inasmuch as it would have necessitated his speedy return. Upon his return home, after an absence of two years, he again resumed practice as a consulting surgeon, and in this capacity enjoyed a large share of business. Soon after his arrival among us, a complimentary dinner was given to him by his professional brethren, which coming, as it

did, spontaneously from a very large body of those who so well knew him, and were in daily intercourse with him, speaks loudly of the hold he possessed on their affections.

With this short notice of the main points in the life of Dr. Randolph, we pass to the consideration of his qualities as a surgeon.

Of surgical tact—by which I mean the faculty of deciding correctly from a full practical knowledge of the subject—Dr. Randolph possessed a very considerable amount; and this, combined with a delicate sense of touch, a keen eye, and an unfaltering hand, rendered him a sound practitioner, as well as a neat manipulator and operator. But surgery with him was what, in the hands of the truly great in our profession, it ever has been—a conservative art. His pride was to repair injuries and cure diseases without a resort to the knife, and the operative part of it he regarded as that of least moment.

He was no friend to mere novelties; and extraordinary, and what are called daring operations, he never sought after, and indeed disapproved of, unless demanded by the clearest and most positive indications. Besides being repulsive to his feelings, he has often expressed to me the opinion, that experience had convinced him, in the majority of instances, their ultimate results were such as in no way added to an enduring surgical reputation. Even minor operations, he did not look upon as trifling matters; and those not absolutely necessary, but done either to gratify the whim or vanity of a patient, or for the cure of deformities, which could readily be borne, he held in utter and just abhorrence.

As an operator he was distinguished for caution, and never sacrificed safety to rapidity of execution, or desire of display, and disdaining, as he did, all useless parade in surgery, he employed the most simple dressings and apparatus.

As intimated previously, Dr. Randolph was slow in recommending recourse to the knife, yet when once he determined on operations, no one proceeded in them with more decision of purpose, or when unforseen occurrences arose during their progress, was more calm and collected. He was remarkable for minute and methodical arrangements before an operation; nothing was hurried, nothing forgotten by him; his instruments were carefully examined, the various steps of the procedure were matters of deliberate consideration, and the accidents which might ensue, were all well considered by him. Sympathy for the sufferings of the patient, and the unceasing attention he bestowed upon the after treatment, were marked traits in his character; and these qualities, combined with his candour on their probable results, tended not a little to elevate his reputation.

As a clinical teacher, Dr. Randolph was clear and precise: his language was plain, but forcible; his manner dignified and unembarrassed, and the practice inculcated by him, prudent, and never daring. In the performance of his duties as a teacher, he deemed

it obligatory on him to bring often to the notice of his class, the every day cases, which make up the principal business of a surgeon's life, and dilated on them and those illustrative of the principles of surgery, in preference to the operative parts, which he rightly judged to be too much dwelt upon by surgical teachers of the present day. Wounds and fractures were favorite subjects with him, and his experience in the treatment of these accidents, had taught him to rely greatly upon the powers of nature for their restoration, when aided by light and cool dressings, and attention to hygienic measures. These points he zealously urged upon the attention of his students, and none who have followed him in his hospital service, can forget his earnest mode of speaking when treating of them, or his happy manner and emphatic expressions, when dwelling upon the benefits resulting from rest and position in the treatment of ulcers and diseased joints, or other similar points of medical surgery.

In surgery, Dr. Randolph claimed no discoveries, and with one exception, introduced among us, no remarkable innovations of the established practice; but with that exception, his name will always be inseparably connected; a discovery, which time, the ordeal that sweeps into oblivion so many of our so called improvements, has shown to be one of the greatest advances made in modern operative surgery. I mean the operation of lithotripsy.

Two cases,* it is true, had been published by gentlemen in sister states, previous to that of Dr. Randolph, but it was not until the subject was taken up by him in 1831, and its valuable results afterwards demonstrated and insisted on, in the operating theatre of the Pennsylvania Hospital, and published in the journals, that the procedure was either looked upon favourably by the profession, or ever urged upon the attention of students, and to his exertions, therefore, are chiefly due the credit of introducing it in our country.

The first success attained by Dr. Randolph, was in no way the result of chance. Previously to entering upon it, he had carefully studied the subject, and experimented on it. He has frequently told me that it was by industry and perseverance alone, that he had acquired skill in this delicate operation, and that before attempting it in his first case, he had not only made himself master of all that had been written upon it, but had also embraced every opportunity in the dead house, of which his situation at the Alms House Infirmary at that time afforded him many, of putting a stone into the bladder, and catching and destroying it. These previous trials gave him a facility in the introduction, withdrawal and manipulation of the lithotritic instruments, as well as a prudent confidence in his abilities, which led to his success. All who have witnessed his ope-

*These cases were those of Dr. Depeyre, a French gentleman residing in New York, and of Dr. P. S. Spencer, of Petersburg, Virginia.

rations upon the bladder, will admit the extraordinary skill and dexterity which he possessed in handling these instruments in that viscus; a dexterity which, in my own opinion, was not surpassed even by the eminent discoverer of the method himself. In speaking of these operations, it must be added, that he attributed much of his success to the use of the most simple instruments only, to not desiring to operate quickly, or to do too much at one sitting, and to invariably withdrawing the instrument when pain was complained of, and putting off the operation for another day. These opinions he always expressed when conversing on his results; and in his operations, no matter who might be present, or how large a number might be gathered to witness the procedure, he never deviated from them. The fear of loss of fame, or the desire of notoriety as an operator, had no influence with him, and more than once, when unexpected difficulties arose in seizing the stone or its fragments, I have seen him close and withdraw the instrument, and disappoint the spectators. From the period he first engaged in the operation of lithotripsy, he devoted himself in an especial manner, to the treatment of calculus, and with the exception of the Professor of Surgery at Lexington, Ky., he is believed to have treated more cases of that disease, than any other surgeon in our country. At the time of his decease, no less than three cases of this rare complaint were under his care. One, a child in the hospital, he had just prepared for lithotomy, the other two had both been brought from distant parts of the country by his reputation as a lithotritist. In one of them he had but just commenced the operation, and in the other, a gentleman, who was the last patient he ever visited, he made a final very careful examination, and had the satisfaction of finding him cured of his distressing affection.

To the medical periodicals, Dr. Randolph contributed but little, and the few writings which we possess from him, being all of practical value, make us regret that they were not more frequent. In the North American Medical and Surgical Journal for 1829, he published the history of a case of femoral aneurism, where the external iliac artery was tied, which was the second instance in which this operation was done in our city. The most extended paper which he published, is one on the nature and treatment of morbus coxarius, which appeared originally in the American Journal of Medical Sciences, for 1830. In this paper, the treatment that had been so successfully adopted by Dr. Physick, was detailed, with his own remarks upon the disease. He also published, in the same journal, a case of amputation of the lower jaw, affected with osteo-sarcoma, and three valuable articles on lithotripsy. To the Medical Examiner, he contributed an account of the removal of the parotid gland, and in the same journal will be found many of his clinical lectures delivered at the hospital.

In his professional intercourse, Dr. Randolph was straight-forward, courteous, and considerate. Of a gay and amiable disposition, open and unobtrusive in manner, of the strictest veracity, warm in his friendships, firm in his resolutions, cautious in the expression of opinions, and not allowing those which he had deliberately formed, to be easily shaken; he was endeared to all who had the happiness to know him well. In the prime of life, and in the midst of a useful career, he was taken suddenly from us, on the 29th of February, 1848. During his short illness, he was collected, and in the full possession of his mind. He prepared for death without fear, doubtless,

"sustained and soothed, by an unfaltering trust"

in the principles of that society in which he had been educated.

SUMMARY

OF THE

TRANSACTIONS OF THE

COLLEGE OF PHYSICIANS

OF PHILADELPHIA.

FROM SEPTEMBER 6, 1848, TO JANUARY 2, 1849, INCLUSIVE.

Stated Meeting, September 6th, 1848.

Dr. MEIGS, Vice President, in the chair.

Present, eighteen members.

The Committee of Publication reported that they had issued the Fifth number of the second volume of the Summary of Transactions.

Dr. HAYS presented, for the Library of the College, the April number of the American Journal of the Medical Sciences, and the numbers of the Medical News to April, 1848, inclusive.

Dr. EMERSON tendered his resignation as the Committee on Meteorology and Epidemics, which was accepted. The Vice President appointed Dr. H. GIBBONS to supply the vacancy thus occasioned.

A conversation took place in regard to the prevailing diseases, and the influence of the weather in their production.

Dr. Condie called attention to the fact of the extensive prevalence of remittent fever. Within his own sphere of observation, which includes the lower portion of the City, the District of Southwark, the upper portion of the Neck, and the villages along the eastern shore of the river Delaware, the cases have been generally of a mild and tractable character, though, in a few instances, the disease presented all the characters of genuine old-fashioned bilious fever, with remissions so slight and of such short continuance, as to approximate it to fever of a continued type. These latter cases have occurred in the Neck. The occurrence of remittent fever within the City, remote from any source of miasmata, is a fact directly opposed to the opinion of those physicians who consider the disease to be invariably confined to paludial districts. In but one of the cases which have fallen this season under the notice of Dr. C., within the limits of the City, was there any reason for supposing that the disease was contracted in the country.

Dr. Parrish has understood, that along the shores of the Schuylkill, those neighbourhoods where, during the years 1846 and 1847, intermittent and remittent fevers so extensively prevailed, have been particularly healthy this season; which circumstance has been ascribed to the greater dryness of the present autumn. His information, he would remark, has, however, been derived from indirect sources, and not from personal observation.

Dr. Condie was not able to refute or confirm the statement of Dr. Parrish, in reference to the exemption from disease of the districts bordering on the Schuylkill; yet, within the sphere of his own observation, he is very certain, that notwithstanding the mortality of the present summer and autumn has not been very great, there has been a much greater prevalence of disease, than during a series of years immediately preceding. He has seen much more of dysentery among persons of all ages, than for several years previously; bilious colic has been particularly frequent, as well as neuralgic affections of the bowels, and a strong predisposition has been evinced to profuse and obstinate diarrhœa from slight causes. Indeed, so closely did the morbid condition of the alimentary canal resemble, in a very considerable number of cases, that which occurred in 1832, preceding the visitation of the cholera, that he had a strong suspicion, at one time, the latter was about again to make its appearance in our midst. To the foregoing list, we are to add the remittent fever now prevailing, and marked in a few cases by the intensity of symptoms peculiar to the bilious fever of former years, such as we were accustomed to meet with in the earlier period of our practice, and to hear descanted upon with so much earnestness by our medical teachers. Dr. Condie should be inclined to lay it down as an established fact, that very dry and hot autumns were almost invariably

attended with the prevalence of disease, but especially of fevers of the remittent type. It is only in those years when, in the latter part of the summer and beginning of autumn, the ditches become, as at present, perfectly dry, and the river meadows so completely divested of moisture, as to require the cattle to be removed from them, that the tract of country extending from the lower part of the city to the confluence of the two rivers becomes particularly sickly, and the remittent fever prevails to any extent among the inhabitants. The same is the fact, he believes, in regard to other localities.

Dr. Stille suggested whether those gentlemen were not liable to be led into error, who, in their inquiry into the causes of the prevailing diseases, confined their observations entirely to the existing state of the weather. He believed that some attention should be paid also to the preceding seasons, and perhaps we should discover that copious rains in the spring, followed by luxurious vegetation during the summer months, by presenting a large amount of decomposible material to the action of the autumnal sun, had as great an influence in the production of the fevers prevalent during the latter season, as the mere heat and dryness of the weather.

Dr. Gibbons believes that there can be little doubt of the general unhealthiness of the present season; we know that remittent and intermittent fevers prevail in our immediate vicinity, while the accounts received from different portions of the country, prove to us the wide-extended prevalence of dysentery. He believes it to be a common observation, that very dry autumns are usually sickly ones. In the neighbourhood of Wilmington, in the State of Delaware, where he formerly practiced, during a season of uncommon drought, a number of years since, when the streams became almost dried up, and many of the wells gave out entirely, intermittents and remittents became unusually prevalent, upon the high as well as upon the low grounds, and they have continued every year since to recur, though to a much less extent. Of the true cause of our autumnal fevers we know but little. Dr. Gibbons confessed that he was unable to discover any relation to exist between their production and the extensive decay of vegetable matter. There are many unquestionable facts which would seem entirely to disprove any such connection. He has known the prevalence of disease to be anticipated, when, during the summer, vegetation has been especially luxuriant, and yet the autumn to turn out one of more than ordinary freedom from disease. It is a curious fact, that in those neighbourhoods where, during a season of unusual drought, intermittent and remittent fevers have made their appearance, they will often continue to prevail every autumn subsequently, for a series of years, whether the season be hot or cold, dry or moist; thus occurring in localities where before they were almost unknown, under a peculiar state of the at-

mosphere, and then becoming actual endemics of the place, independent of what might have been supposed their exciting cause in the first instance. This has been the case upon the high ground in and about Wilmington.

Dr. C. D. Meigs believes that the years during which Philadelphia was visited by the yellow fever, were marked by a very wet spring, a very productive summer, and a hot, dry autumn. There is an old saw bearing upon this point, which, like other old saws, is to be received as the popular expression of the result of common observation, "a fruitful summer and a hot yule make a fat church-yard."

Dr. Coates remarked, that a few years since, during an autumn of unusual dryness, remitting and intermitting fevers prevailed to some extent upon the high grounds in and about Germantown, a village noted for its salubrity. The occurrence of these fevers in the locality alluded to, was attributed to the destruction of the grass upon the high grounds, by the drought, and its consequent decay. He would inquire of Dr. Gibbons whether he has seen anything of the kind to occur in elevated positions, where fever has prevailed, and whether he would be inclined to attribute the production of the fever in such localities to that cause.

Dr. Gibbons did not suppose, that upon the destruction of grass, in consequence of a season of excessive drought, it went into a state of decay, that is, of decomposition: it was simply deprived of its juices, and desiccated. But, at any rate, he did not believe that the occurrence of fever upon elevated grounds, during dry seasons, could be explained by the decay of vegetable substances.

Dr. Coates remarked, that in the instances to which he had alluded, the grass did actually decay, that is rot: in this condition he has himself seen it. It was not merely desiccated and reduced to powder: it was absolutely in a state of decomposition.

Dr. Griscom would recall to the recollection of the Fellows the opinion entertained by some writers, that certain soils, previously saturated with moisture, and then thoroughly desiccated, give rise to some kind of morbific exhalation, which is the cause of intermittent and remittent fevers. This opinion would seem to be rendered at least plausible, by the fact mentioned this evening by Dr. Condie, in regard to the condition of the ditches and marsh meadows in the Neck, during the prevalence of fever in that neighbourhood. It is well known, also, that the mere turning up of the soil in newly settled districts, and the excavation of canals, in the absence of moisture, or any extensive sources of vegetable decomposition, will cause the prevalence of fevers. Dr. Griscom has known a neighbourhood to be invaded by dysentery, upon the entire drying up of a large mill-pond.

Stated Meeting, October 3rd, 1848.

Dr. Bache in the chair.

Present, twenty-eight members.

A Communication was received from the Secretary of the American Philosophical Society, acknowledging the receipt of Nos. 4 and 5, Vol. II. of the Summary of Transactions.

Dr. Coates remarked the impracticability of producing a complete Report on the Practice of Medicine; and in particular, the shortness of the period (from June to October) assigned for the preparation of this Report; which, in his opinion, ought to be the most voluminous of all.

Such matter as he had prepared, he produced, in compliance with the commands of the College.

Dr. Coates then presented and read the following Annual Report on the

Theory and Practice of Medicine.

The duty of the Committee opens with a cause of regret. The labour of sketching an outline of the progress of the Theory and Practice of Medicine during a year of the present epoch, or even of selecting with judgment a few conspicuous points, is copious and long, from the prodigious amount of the materials. It is, in fact, by far the most extensive of all the tasks of reporting which you have delegated to your Committees. Your reporter, therefore, apprehends that injury is done by requiring this, the most bulky report, to be presented at the earliest day. Glad, as the occupations of a practitioner and a man dependent on his industry could make him, to be discharged and relieved from the service at such an early day, he feels that injustice would be done to the solemn importance and deep interest of this subject, and to the abundance of the materials, if he were not to point out the claims of the Theory and Practice of Medicine, to a more extended report.

DOMESTIC.

General and Systematic Medicine.—Your reporter would have had great pleasure in commencing his labour by giving an account of the elegant and compendious work of Dr. Wood, on the Practice of Medicine. The first volume of this, one of the few great works of American Medicine, belongs to the report of the last year; and the second falls into the present one by accidental delay. Your

reporter saw that to give any thing approaching to a suitable analysis of this work, would occupy so much of your time in hearing, and of his in writing, that it would interfere seriously with the discharge of his remaining duties, already too copious for justice to be done them. Perhaps it may be granted that elaborate analytical reviews of systematic works are not well fitted for such annual reports as the present. They are seldom, if ever, employed for this purpose in foreign societies of a similar character.

Happily, the work of Dr. Wood is so fully in the hands of the profession, that little occasion exists for the present reporter to dilate upon its merits and peculiarities. This is generally the case in such instances; and in the present case, enough has been said to the public in able and elaborate reviews.

The principal remark which it has occurred to your reporter to make here, is that Dr. Wood seems to have aimed rather at displaying and cultivating American Medicine as contra-distinguished from foreign; and that he seems almost the only author who has taken laborious pains to do justice to American publications.

It is gratifying to find, in the eloquent Anniversary Discourse of Professor John W. Francis, a gentleman of his age and claims to repute, coming out manfully in defence of the present science of medicine. This he maintains both against imposture, and also in opposition to the fallacy, so common in popular circles, and so often supported by those of higher claims and better sources of information, that medicine does not make progress along with and proportioned to those of other sciences, and that educated physicians content themselves with old doctrines and the opinions of their predecessors. This assertion, so convenient for the indolence or the want of opportunity and leisure of the practitioner originally well informed, is by none maintained with more earnestness than by the quack. The selfish promulgator of either ignorant or learned imposture is ever ready to contrast his statements, often no novelty at all, with the conduct of the men of real science who oppose him, by pretending and positively asserting that these will listen to nothing new, and are strongly and immoveably wedded to antiquated opinions.

The untruth of these allegations is well exhibited by Dr. Francis; and truth comes with emphatic force from the lips of one who so well exemplifies the character he attaches to our science; an old and venerable member of the profession, keeping himself familiar with scientific novelties, and frankly avowing and defending their value.

In a stage of civilization so prone as the present is to favour quackery, to patronize and indulge imposture at every turn, and to injure and depress honest science and philanthropy, the neat duodecimo of Dr. Henry Hartshorne, entitled "Water versus Hydropathy," cannot fail to be of use. It is said that a good action is

never lost; that like bread cast upon the waters, it returns again after many days.

We observe that Dr. Hartshorne, amid an extensive survey of the subject of aqueous therapeutics, classic and American, proves one of the few American physicians who have ventured upon the repeated use of Greek quotations in the original. We presume this is an effect of the quaker college at Haverford, at which institution Dr. H. certainly won a favourable distinction. Some of his citations are very appropriate: some we do not understand.

Zymoid Diseases.—In borrowing the etymon of this title from Dr. Ranking, I have altered the terminal spelling; for this reason. Not wishing to commit myself, with Dr. R., to the expressed opinion, that the diseases in question, including erysipelas, all arise from the imbibition of an animal or vegetable poison, they still appeared to me to form a very natural group, which it might be well to express by a word independent of such a theory; and Zymoid is here assumed instead of Zymotic, to imply diseases whose progress resembles a fermentation, whether the causes be absorbed poisons, meteoric or telluric influences, or something yet unascertained by human science.

The observations on Yellow Fever, by Dr. C. H. Kelly, of Mobile, in the Philadelphia Journal, being founded on observation, and apparently made with care, we shall partially analyze them. They were made in the course of a practice of sixteen years, in New Orleans, Charleston, and Mobile. Yellow fever, according to Dr. Kelly, may be defined to be a distinct form of continued fever, consisting of a single paroxysm, varying in duration, but without any true remission from its commencement till its close. The subsequent paroxysms which occur in some cases, are a true sequela or epiphenomenon; and are the result of derangement of the secretory functions, of visceral obstructions or of a chronic inflammation of certain tissues, consequences of the violent action which takes place during the first paroxysm. Among the symptoms, we observe pain in the forehead and orbits, pain in the knees and calves of the legs, with cramps, an intolerable rhachialgia, increased sensibility of the epigastrium, irritability of the stomach, and vomiting. Immunity from a second attack is considered by Dr. Kelly as a special characteristic of yellow fever. He confirms the observation of Pym and others that in four-fifths of the cases the commencement of the attack was at night. Yellow and bilious fevers occurred together; and it was easy to distinguish them. Dr. K. distinguishes inflammatory, congestive, and adynamic forms of the disease, and walking cases.

In the last named, Dr. Kelly believes the stages of the disease had been regularly undergone; though without causing the con-

finement of the patient. This is the conclusion to which I was led in 1820. The yellow fever, according to Dr. Kelly, produces effects upon the stomach specifically distinct from those which occur in gastro-enteritis. The gastro-enteric vessels present, on dissection, an appearance similar to that observed in strangulated animals. He infers from this that the injection of the vessels, in this case, is owing to a loss of contractility. The mucous membrane is often mammillated; but there is seldom any indication of thickening, softening, ulceration or gangrene. I find it not perfectly easy here to distinguish Dr. Kelly's own observations from those which he has compiled. The average duration of the cases being only about forty hours, this must be taken into the account on judging of these alterations. The condition of the liver is very various.

Following Gilkrest, Dr. Kelly apprehends that the agencies producing yellow fever first produce their impressions in the ganglionic and spinal nerves. We do not see why the spinal are included. Your reporter does not pause on Dr. K's. other ætiological inquiries.

The mass of evidence is adverse to the frequent use of the lancet. Dr. K. doubts its being ever beneficial after the very first stage. Cold affusions, and cold applications to the head, were beneficial. The warm or tepid baths should be used more generally, even in the second stage, and continued for ten or fifteen minutes, with frictions to the body and extremities. The patient should then be quickly enveloped in a warm blanket and put to bed. Cathartics, with calomel, should be resorted to without the least delay. Injections, and Dover's powder, are frequently valuable. Mercurial salivation is of great value; Dr. Kelly never having known a fatal case where it had been produced. Irregular inflammatory affections of the mouth are excepted by Dr. Kelly from this category. Continued purgation, particularly of watery stools, is injurious. Acetate of lead and nitrate of silver, the latter in doses from one-eighth to one-third of a grain, were useful in arresting hemorrhages. Blisters to the epigastrium were generally beneficial; and similar applications to the spine served to relieve the irritability of the stomach as well as the acute pains and the jactitation; blisters, however, were useful only in the earlier stages of the disease; and the use of them in the decline was very seldom attended with success. For irritability of the stomach, we have solution of bi-carbonate of potassa, in some cases a solution of camphor in ether, prohibition of drink, and allaying thirst by holding pieces of ice in the mouth, and if constipation exist at the same time, castor oil or croton oil. Saline purgatives, after the first stage, tend to produce thin, red, muddy stools, a tender and tympanitic condition of the abdomen, and irritation of the brain.

Dr. Kelly uses stimulants, particularly opium as such, to prevent the collapse in the second stage; frequently with the effect of producing sleep. In many cases, he had the phenomena of delirium

tremens. Alcoholic stimulants frequently did harm. Sixty and eighty grain doses of quinine, Dr. K. has found to meet with a discouraging want of success.

He has not succeeded in arresting the black vomit; having made use, to console the friends, of charcoal, chloride of sodium, tannin, creosote, tincture of cantharides, and some other articles.

Dr. F. W. Sargeant's notice of cases of typhus fever observed at the Philadelphia Lazaretto, from vessels arriving from Liverpool, Belfast and Londonderry, forms a useful study to the American practitioner. His cases are observed with minute detail, extended scientific light, and we doubt not, scrupulous accuracy. The disease was a petechial typhus, with the addition of rose colored spots, offering few abdominal symptoms; diarrhœa occurring in only thirteen cases out of thirty-two, (41 per cent.) and no distinct inflammatory swelling and color and no disorganization appearing in the few instances in which he was enabled to inspect Peyer's glands. Dr. Sargeant aspires, with a success very honorable to him, not only to the praise of a pathologist and morbid anatomist, but to the more valuable merit of a good practitioner. Only four cases were lost out of thirty-seven; (11 per cent.;) a low mortality for such enfeebled subjects and for this disease. His treatment was principally composed of tonics and stimulants, chiefly quinine and cinchona bark, with carbonate of ammonia, brandy, &c. Calomel in very small doses, was used, combined with ipecacuanha, opium or Dover's powder. Cold ablutions were of great service; and in some cases, blisters, dry and wet cups, and stimulating lotions. The diet was of farinaceous broth, essence of beef; and a mixture for convalescence.

Dr. Charles E. Lavender, of Selina, Alabama, has presented for us deductions, with a few examples, of the congestive fever of our southern and western States. We recognise in them the disease of Cleghorn and Alibert; of which a few specimens are generally seen every year in Philadelphia. His paper will be a useful study to any American practitioner. We regret that he has not given us any dissections. It were much to be wished that the gentlemen who witness this important and truly formidable disease, to which so many of our most valuable citizens fall a sacrifice, could find time to make and publish a series of dissections in detail after examination of the symptoms, and including particularly the head, and properly the spinal marrow. There should be several series made, in differing times, climates, and localities, so as to avoid the error of supposing that rules drawn from nature in one set of circumstances must be unerring in another. In the absence of minute particulars, mere scrupulous narrations would have a partial value; and the

collection would be a substantial and valuable favor to humanity and science.

In one case, the jugular veins were much distended two hours after death. From a puncture made by Dr. L., there issued a pint of black blood. In the description of several cases, are mentioned symptoms indicating severe congestion of the lungs, as well as of the brain. The relation between such a disease and the forming stage of pneumonia, ought to be studied. We have known the principal seat of the congestion to be found in the lungs, when it had been supposed to be in the brain.

Bleeding, Dr. Lavender finds rarely to be tolerated; though he has drawn a little blood sometimes from the jugular, to relieve the brain. Patients have fallen, from the loss of a few ounces of blood, into an immediate collapse, from which they never recovered. This has even been the case after the disease has appeared to yield to quinine, and the patient to be decidedly on the recovery, only complaining of restlessness, apprehension, head-ache, and oppression, and exhibiting fulness of the superficial veins. Drastic or hydragogue cathartics were nearly equally unsuccessful, till the decline of the disease, and indeed till near convalescence. Quinine has proved his main remedy. His doses are from five to twenty grains at once; to be repeated every hour or two, till the characteristic effects are produced. In the production of even fatal effects from these doses, given imprudently, he believes; but does not appear to have seen them. His description of the toxicary phenomena does not differ from those of previous narrators. Brandy and other stimulants are sometimes needed in large amounts; yet are extremely dangerous in the slightest excess. Calomel, (dose ten grains every two or three hours,) was of great utility. Dr. L. never saw a case that did not recover, if purging of dark, vitiated bile took place before there was congestion of the brain. Cold affusions, where the patient had at the time no tendency to chilliness, were given with great advantage even during the employment of calomel. Salivation was not desirable. External stimulants should be applied freely and perseveringly. Anodynes are of great service, (dose 1-8 gr. of sulphate of morphia,) and may be combined with ipecacuanha, or given by injections or endermically. Cold acidulated drinks are often of great utility.

Death is not uncommon during the first chill; in perhaps a majority of instances, it occurs in the second paroxysm. The recoveries related are in from two to five days.

The little volume of Dr. Hastings on yellow fever, has provoked opposition. This was to be expected when it was found that he had denied submission to Professor Louis, page 18, with something like a sarcasm. The severest and ablest criticism on it, however, which we have seen, does not claim to correct the errors of Dr. Hastings

by any experience of the reviewers, written, numerical or otherwise. We feel a caution not to betray the valuable contribution of one who has had such opportunities, to the prejudices of his opponents.

Dr. Hastings's claim to a very large experience, it would be dangerous to gainsay, from his known opportunities, and the public character of his observations.

The principal points of interest in his opuscule appear to us to be, his ascribing a strict and exact regularity to the disease, his belief that death usually takes place through the effect produced upon the brain, his conviction that second attacks are of very common occurrence, and his claim to very great and extraordinary success. He is a non-contagionist; and cites examples.

The first paroxysm continues, according to Dr. Hastings, about ninety-six hours, or until the commencement of the fifth day; when the great remission occurs. This is often varied by the occurrence of a well marked remission during the first twenty-four hours; the skin becoming cooler, not unusually with perspiration, and the pulse more natural, with an abatement of all the symptoms. The remission is, however, of short duration, and the symptoms return with their full force. The "walking cases" he has seen, but believes that they have had the fever for all the usual time; and he has observed, in common with some other inquirers, the extraordinary extent to which the muscular forces and those of volition retain their perfection in this disease, and believes that they have continued to go about with the fever on them. "Some of the most intractable and fatal cases are those of which the early symptoms are the mildest."

With regard to the brain, in some cases the attack resembles hysteria; in others, the patient falls down suddenly, as if struck. Violent pain is felt in the head; the countenance is flushed and swollen; the eyes prominent and injected with blood, having a glassy appearance, and a heavy, anxious, stupid expression; there is great restlessness; on the fifth or sixth day, coma, with a wild stare; by end of the sixth day, the patient is unconscious, and he often thus escapes the alarm produced from beholding the fatal black vomit; towards the end of the seventh day, low muttering takes place. Death is very generally on the seventh day, but not unfrequently on the third or fourth, when the patient has been previously affected with disease of the heart or large arteries, or a strong predisposition to apoplexy. In three cases, Dr. H. found apoplectic effusions upon the superior surface of the brain, beneath the dura mater; in two more, a large amount of bloody serum in the ventricles of the brain, at its base, and in the spinal canal, with astonishing distension of all the blood-vessels both within the substance and upon the surface of the brain. These patients had stertorous breathing and other signs of apoplexy; he does not men-

tion palsy. He has never seen a case recover which had been affected with hiccup, though in circumstances otherwise flattering.

Dr. Hastings agrees with the late Professor Rush, in describing the frequent occurrence of second attacks, and that of some third attacks. During the summer of 1847, he saw upwards of two hundred cases of repetition; and he believes that the convalescent patient is more exposed to the disease than before, from his debilitated condition, if he be still subjected to the causes of the disease.

To this, it is well known that many oppose a contrary experience. We are among those who think, that where the belief of two opposing witnesses can be reconciled by a reasonable explanation, it is better science to do so, than to pass one of them over in silence and be guided by the other. Have not the class of second and third attacks described by Dr. Hastings been distinguished from that category, by those who allege a different experience, by calling most of them *relapses*, and not fresh attacks? and have not others been called "too mild for yellow fever?" Both parties should recollect the remark of the great Sydenham, that the discovery of our errors is the most valuable part of our experience.

His treatment comprehended free bleeding, continued till the fever and head-ache visibly abated, perspiration broke out on the forehead, and in many cases deliquium animi occurred. His patients, it is to be recollected, were picked young men. This was generally followed by refreshing sleep. In the cold stage, he applies a large blister over the epigastrium and right hypochondrium. This soon allays vomiting. Early in the disease, he sometimes gives emetics of ipecacuanha or solution of muriate of soda; and finds the vomiting more easily checked afterwards. Next, he gives a scruple of calomel, with from a fourth to a half a grain of sulphate of morphia, according to the nervous excitement. An ounce of sulphate of magnesia is given in six or eight hours; and perhaps more is added. The blister is dressed with mercurial ointment, to produce ptyalism; which he continues, if practicable for seventy-two hours. During that time, "not a mouthful of any thing should be taken into the stomach," unless vomiting continue. In this case, he gives from a quarter to a half a drop of creosote, in ether or acetic acid, every hour, till the vomiting ceases. Very small doses of morphia are added, if the excitement of the nervous system require it. Enemas with ol. ricini and turpentine are used, where needed, to keep the bowels opened daily; the more freely if there be visible any tendency to coma or even dullness of the intellect. Iced water is kept applied to the head; and ice or iced water kept in the mouth to allay the thirst, but not swallowed. The skin when hot and dry is spunged with cold water. Sinapisms or other irritants, are used to relieve the pain of the small of the back. In a few cases, an exacerbation of the pain and heat and increasing tendency to coma, render it necessary to bleed again. During convalescence, gruel,

a little flavoring with (for seamen, we are to remember) a weak brandy and water, small doses of colocynth, taraxacum, blue mass; where the nervous system is much disturbed, small doses of strychnia, and Seidlitz powders. We are not told the nature of the nervous symptoms which require strychnia.

The success claimed is as follows:

1841, U. States brig Jefferson arrived at Indian Key—a number died; but he believes none who were landed within the first three days.

Schooner Otsego; every officer and man on board affected with the fever. Dr. M'Kinley and a seaman died on board. All the rest went into hospital, and none were lost.

Same schooner returned with an entirely new crew. All were again affected with the fever. They arrived in two days at Indian Key; all went into hospital, and all recovered.

The expedition they relieved lost several men on the coast; and three died; having come into hospital after being sick several days.

At Tobasco, in 1847, more than three hundred cases; "no death from the fever."

The U. S. steamer Mississippi, in the same summer, more than four hundred cases; only two deaths.

The late Dr. Howard Smith and Dr. Hastings, at the naval hospital, island of Salmadina;—thinks over four hundred cases. Deaths. Of those received within the first forty-eight hours; Dr. Kearney, Lieutenant commanding Chauncey, Dr. Howard Smith and master of arms Bates; four officers, no men. Of those received from the fourth to the seventh day, Dr. Bates, and eight non-commissioned officers.

Dr. Hastings finds this to prove a mortality of only one-half per cent. of all those received within the early stages of the attack; and publishes extracts from Lieutenant Simon F. Blunt and Dr. T. M. Potter, confirming his estimates of the violence, severity, and prevalence of the disease.

These are certainly very extraordinary results indeed. We are so far from wishing to prevent Dr. Hastings's statements from being listened to, that we would warmly urge him to publish a far more full and detailed account of them. They are truly very important indeed. Europe has a right to look to American physicians for a thorough investigation of yellow fever; and it ought to be recollected that if we do not as yet possess a fully exhausted record of every case, with every fluctuation of symptoms during life, and an examination of every fibre after death, neither yet are the philosophic men who furnish us with these details charged with the responsibilities of whole crews of ships of war ill of yellow fever at once, two-thirds of their own number removed by death, and the necessity of acting instant, without the assistance of professional brethren. Nor is it likely that the opportunity will occur again.

The United States will not probably again send armed ships to blockade these unhealthy localities. We would urge Dr. Hastings to publish to the fullest extent every fact and reflection he can collect upon the matter, documents and all, if his volume reach six hundred or eight hundred pages.

The occurrence of a very great success in the cure of yellow fever, is one of the most important facts in relation to it, not only in the moral, political, and economical senses, but as a means promising, at no distant day, to enable us far better to understand this terrible visiter, reduce it to scientific principles, and acquire that confidence, familiarity and settlement of opinion on the subject, so conducive to practical usefulness and success in the service of our kind. Instead of displeasure at a claim to the reputation of such a beneficial and truly blessed result, every American physician ought to feel the deepest gratification in every point of view; he ought first carefully to satisfy his own mind as to the extraordinary fact, and then proceed to draw the proper and "inductive" conclusions.

We will remind the members of the College that, many years ago, probably twenty-six or twenty-eight, the doctors Clendenin claimed an approximating result in the city of Baltimore; as will be seen by the published reports of that time.

It is an old and common belief among persons who have been in Hayti, that the old mulatto women of that island have had a success in treating yellow fever, far beyond that of physicians.

Dr. Mitchell claims, as we quote from the Charleston Journal, not having yet had time to examine the original, a very high success in treating this same yellow fever among the naval and military forces in the Gulf of Mexico, during the war; though not so high a one as that of Dr. Hastings.

During the epidemic of 1820, in Philadelphia, we well recollect the existence of numerous cases of yellow fever terminating in recovery, that were not reported or included in the published statements. They were suppressed from fear by the physicians of having their characters injured, as every one who reported a case was assailed in the harshest manner; and the practitioners were afraid to report any cases unless, as they phrased it, they thought them "bad enough to report." For the accuracy of this statement we appeal to Professor Samuel Jackson, then well aware of this state of things. Our own belief was and is that, instead of a mortality of some eighty-two out of one hundred and twenty-three, or two-thirds, an estimate of about eighty-two out of five hundred, six hundred, or seven hundred, or a ratio of from twelve to sixteen per cent., would have been much nearer the truth.

It will be easily remarked that Dr. Hastings has, in general, confined himself to the use of common and familiar means of cure. He has not sought to distinguish himself by the introduction of new and singular remedies, but to save his men and discharge the duties

imposed by a frightful and imperative necessity. This he attempted by means familiar to his mind, and of which he could estimate the exact effects much better than of strange ones; and he determined wisely. An unsettled state of mind, fickleness, indecision, and the employment of means without any settled estimate of their probable effects—these agencies, much neglected among the philosophic inquirers of the age, and perhaps often with great labor produced by them, are really among the most important and the most destructive. Dr. Hastings' aim was usefulness and duty, and not "glory." Here was "an excellent opportunity," if we employ the language used by some, "to try, amid so large a number, the real effects of a variety of modes of treatment." Undoubtedly so; but the result would not have been a mortality of only one half per cent. The philosophical object would have been in some degree gained; but it would have been at the expense of the lives of many American citizens. Fine illustration of the first sentence in the study of medicine. Experientia fallax, occasio præceps, judicium difficile!

Psychological Medicine.—Case of William Freeman, the murderer of the Van Ness family. Dr. Fosgate has published very interesting details of this case in the Philadelphia Journal. The accused, a slightly built mestizo, principally of African blood, was convicted of larceny, and imprisoned for five years. It was generally conceded that he was innocent. He left his prison under the idea that he was entitled to a compensation for the loss of his time. In connection with this it was, as we infer from Dr. Fosgate's narrative, that he committed the murder. He was found guilty; but a new trial was ordered by the Supreme Court. He was unalterably tranquil, with an occasional smile resembling that of a person about to laugh.

Four days after the murders, he was found by Dr. Fosgate entirely deaf of the left ear and partially so of the right. He had unequivocal pulmonary consumption, an abcess which burst and discharged profusely from the left ear, his hearing was ultimately nearly or quite destroyed. Three weeks before his death, his left eye protruded so far that he could not close the lid over it; and the eye was deprived of sight. The left side of the face was paralysed, and the mouth drawn to the right. If I understand aright, the right eye was also affected, as he is spoken of as "almost blind."

The dura mater was found in a state of congestion at its anterior portion, with effusion of serum between the membrane and the arachnoid. There was also a small adhesion to the occipital bone. The pia mater was thickened and in a state of congestion; particularly in the superficial vessels of the right anterior lobe; and the anfractuosities of the right hemisphere were filled with serum. There was an increased amount of blood throughout the whole upper part of the brain. The petrous portion of the left temporal

bone was the seat of a caries and a necrosis, the internal ear and membrana tympani almost obliterated, and the dura mater covering this bony part in a state of congestion.

The brain weighed only two pounds, eleven and three-quarter ounces. Phrenological descriptions and measurements are given; from which we gather that self-esteem and firmness were very large, combativeness and destructiveness large, and the other organs small, except the intellectual, which were moderate.

Dr. Fosgate infers, in common with those parties who moved the Supreme Court for a new trial, that this subject was of deranged mind, and not a responsible agent, at the time of the murders. In this your reporter joins him; but begs leave to suggest a further reflection, in favor of which recent evidence has accumulated, as far as parallel cases can go, to a very serious amount; the inquiry whether in this man, principally of negro origin, the imprisonment has not itself produced the consumption and other tubercular disease. In this case, would it not appear that the State which acted to spare the offender in four murders, itself inflicted death for a larceny of which the party is now believed to have been innocent, and caused the massacre it was preparing to excuse?

It is alleged, on the authority of Dr. Telfer of the Insane Asylum at Toronto, (York,) Canada, that intermittent fever has been found among the frequent causes of insanity. Three cases are cited, the narrative of which your reporter is not sure he understands; in which, by the proper treatment for intermittent fever, the insanity declined, and with its gradual disappearance, the original disease again manifested itself. Ultimately, complete restoration to health was effected.

By Dr. M'Farland, of the New Hampshire Asylum, it has been observed that an undue concentration of the powers of the mind upon one subject, has been prominent among the special causes of insanity; and that this has been more especially in relation to the study of the truths of Holy writ.

We are gratified to learn that the authorities of the State of New York have it in contemplation to establish a school for idiots. That the situation of these unfortunate beings is capable of great amelioration, is a truth that could scarcely escape the observation of any professional man; and were this not the case, the recent successes in Berlin and Paris furnish abundant evidence. In this age, so remarkable for enthusiasm in favor of beneficent institutions, this new, but suffering object can hardly fail to receive attention.

Your reporter is glad to find, that Dr. Bell, of the M'Clean Asylum, near Boston, has observed a manifest tendency of public opinion, among physicians engaged in this branch of practice, to return to and confide in the principles of medicinal treatment, advanced, now nearly half a century back, by Pinel and Tuke, and to ascribe them to their true authors; and we are glad that he has

invited attention to it. To the disappointments in the use of novelties of which he makes mention, we are tempted to add those succeeding to highly wrought representations. The human constitution is the same in all nations and under the hands of all individuals; and the honored names we have mentioned, which convinced our own reason, were as fully competent to investigate, and did perhaps perform the labor nearly as well as some reputations which have succeeded them, to which the credit of originating humanity to the insane has, perhaps indiscreetly, been awarded. The treatment of the insane suffers one serious disadvantage, at the present moment, from its very popularity. From its deep appeal to the feelings of families and friends, it seems to give power, by means of an impassioned and eloquent appeal to non-medical persons, to influence minds, unacquainted with the recent history of our profession, to imagine that new which is new to them, and deck the brows of favorite physicians with laurels due to their meritorious preceptors.

The use of *hacheish*, to remedy melancholy, by the production of a pleasant reverie, and that of anæsthetic inhalations, to repress acute delirious excitement, have had trials during the year; but these promising remedies are justly characterized by Dr. Bell as requiring further examination.

The remarks of Dr. Evans, of Frankford Asylum, in favor of the frequent use of frankness to the insane, instead of affecting to treat them as infants, and make a habit of over-reaching them, are well worthy of attention. Your reporter can bear witness, from his own trials, during a long experience, to the truth of this remark. The paroxysm of excitement, generally lasting several days, which immediately succeeds the admission of patients to an insane asylum, has this generally for its principal effective source.

Dyscrasies.—Dr. Isaac G. Porter confirms the opinion of Dr. Foltz, that starch is an antiscorbutic; and that this is the reason of the usefulness of potatoes in the prevention and cure of scurvy.

Diseases of the Spinal Marrow.—In thus classifying tetanus, after the example of some of our best masters, your Committee does not wish to be unduly wedded to a peculiar view of the subject, either so as to imply a foreclosure against future argument, or a wish to influence the minds of others. He has merely assumed this distribution, as that one which appeared most in consonance with the present state of science and public opinion.

It is here introduced for the purpose of mentioning Dr. Parrish's case of great relief, and a probable presumption of contributing to ultimate cure, from the use of inhalations of ether.

Internal Diseases of Malformation.—Dr. West's interesting case of false aneurism, with obliteration of the aorta, is well worthy of

notice; but we do not analyze it, as it has been already presented to this College, in the first instance.

Heteroplastic Diseases.—Dr. John M. B. Harden has given us (American Journal, No. 28) a well elaborated review of the scrofulous and tubercular diseases, classed under the isopathical point of view. His article shows much research; and cannot fail to be instructive to the pathological student.

FOREIGN.

Cosmic and Malarial Diseases—Cholera.—We have occupied so large a portion of the limited time and space allowed us, with our domestic article, that it is impossible to make any impression on the immense mass of curious, instructive, and valuable matter which is offered to our choice in the European publications of the year. We have thought, however, that it might be well, in the present season of alarm, to collect what intelligence came in our way in regard to the formidable cholera. Perhaps we cannot better commence our article than by recapitulating the latest news which we have received of this wide-spreading scourge of the human race; or as some philosophers have viewed it, this kind but dreadful minister of a beneficent Creator, to arrest the miseries of a too crowded population by removing the weak and the unfortunate.

From the Liverpool Times, of September 16th:

St. Petersburgh, August 31, there were three hundred and thirty patients under treatment. In the course of the day twenty-two recovered and thirty-six died. September 1, there were three hundred and forty-five under treatment.

Warsaw, August 1, the first case in Poland occurred in this city. The patient died, after five hours' suffering. Next, two more occurred; and the 17th, another. Several cases have occurred, among the military in the camp, as well as in the city.

Berlin, up to the 8th, (we infer of September,) there had been seven hundred and eighty-four cases; of which four hundred and eighty-four were fatal. In Stettin, on the 5th, there had been six hundred and fifty-two, of which four hundred and thirty-three were fatal. It has also appeared at Magdeburgh, on the Elbe, and in Vienna.

Dr. André Leval, member of the Council of Health of *Constantinople*, found, in November of last year, that the cholera was generally preceded by the usual cholerine, notwithstanding the general absence, at that period of the year, of all tendency to bowel complaints. Persons in bad health became disordered from slight causes. In some instances, however, the attack was abrupt.

Attacks generally began soon after midnight; sometimes in the morning, rarely during the day.

Dr. Leval's minute and careful description of the symptoms we do not copy. It agrees with other observations. In sixty cases, he saw thirty-three deaths; and twenty-two of these occurred before or at the passage from the cold to the febrile stage.

The duration was commonly from three to four days; the longest, eleven days; and in several, only sixteen hours. Recovery seldom took place in less than from six to eight days.

The exciting causes were, generally, alcoholic intemperance; also excess in eating, chills of the feet, and violent passion; sometimes a neglected diarrhœa. Of sixty cases, forty-one were males; three were children; two of which were males; the youngest was six years old. Most cases were at from thirty to forty-five; the rest generally younger, but some between sixty and seventy.

He gives the following evidence in regard to *contagion.*

He rarely observed several persons to be attacked in succession in the same house. In four different houses, however, a second person was attacked; and, in the French hospital, five individuals, convalescent or suffering with various diseases, were affected with cholera, after the patients having that disease had been introduced into the establishment.

Dr. Leval obtained but two dissections. One of these was confined to the alimentary canal; in the other, all the organs were examined. Nothing was found differing in any degree from usual appearances.

The treatment was very various. Dr. Leval has not seen any visible difference in the degree of success of any one of them; but he considers his number of cases insufficient for a just estimate.

The north wind prevailed, the temperature was low, the period of the disease commenced with abundant rains, and continued cloudy during the whole time, except three or four days. It began on the 24th of October; he writes on the 25th of November; at which time, the disease was extending itself very slowly through Constantinople.—*London Encyclographie des Sci. Medicales.*

These data appear to us to be very valuable; and worthy of the accurate and scrupulous character of a medical observer. Your Committee regret that they could not obtain from so accurate a historian, details and results in relation to the treatment—a branch of the subject without which all others are nearly useless; and the importance of which might overrule all considerations of modesty or even personal abilities. In regretting that we could not obtain from Dr. Leval the results of the whole or a large portion of his sixty cases, as treated by some uniform method, we would say that in this lies one important cause of our want of success in treating cholera. As long as various methods are pursued in the practice of the same physician, it is impossible that tangible results can be obtained, which may be subsequently compared with the results obtained by

others; and it is thus impossible that a sound practice can advance. The practitioner who employs this reserve may gain higher praise when he writes, as a sound philosopher; but for the service of mankind, he has not only done no good but has positively done harm. He has added the authority of a high reputation to fear, doubt, wavering, and uncertainty, under which no practice whatever can be successful, and he has disheartened future inquiry, and encouraged fraud and imposture, by countenancing the idea that the result of all practices is equal, leaving the charlatan to infer that brickdust is as good as any medicine devised by skill, learning, and experience.

London. The bishop of London has addressed (December, 1847) a pastoral letter to the clergy of his diocese on the subject of measures to be taken in case the cholera shall appear in England. He particularly recommends cleanliness and temperance. He strongly urges the exertion of their influence, by the clergy, to induce the people to comply with the recommendations of the authorities, and of persons of science and experience.

M. Goujon, of Clermont, recommends the employment of a strong *mustard bath* over the whole body, and the continued *inhalation of ether*. We presume he means at intervals. He has only had two cases; and we are not directly informed of the result.—*London Encyclographie.*

M. Andral read to the Academy of Sciences, in September, 1847, a note on the nature of the *liquid* secreted by the mucous membrane of the intestines in cholera. His conclusions are as follows:

1. The white fluid found in the intestines of patients who have died of the cholera is not a part of the blood, as has been frequently asserted. Neither albumen nor fibrine is found in it.

2. This matter is nothing else than mucus, suddenly secreted in very large quantity, and modified in its qualities by that very circumstance.

3. The essential microscopic character of this matter is, the existence in it of a very great number of nucleated globules, perfectly similar, in their appearance, to the globules found in pus; although this substance in no other respect resembles pus.

4. The examination of the blood of choleric patients shows that the albumen of the blood is preserved in them in its regular proportion.

5. The theory which refers the symptoms of the period of cyanosis in cholera to a change which the blood has undergone in its composition by a great and sudden loss of its serum, cannot be admitted.

M. Gluege, professor in the University of Brussels, has written to the Academy, in consequence of this communication, that he has met, in typhoid fever, with a similar appearance, but that the globules

were epithelial cells, and were not the same with the globules of pus, although they sometimes had the appearance of being such.

M. Monneret, an agregé of the faculty of Paris, and one of the physicians charged by the French government with observing the cholera in the East, has read to the Academy a memoir of the epidemic of *Constantinople* noticed by Dr. Leval, in December, 1847, and the beginning of the present year. Of two hundred and forty-eight received at the Marine Hospital, seventy-three died; (or twenty-nine per cent.;) in the army hospitals, one hundred and seventy-two were treated and eighty-three died; forty-eight per cent. The author estimates the whole number of cases in Constantinople at about fifteen hundred.

Dr. Monneret believes that he can establish important differences between this epidemic at Constantinople and that which occurred in 1832 at Paris. He admits three forms of the epidemic, cholera of complication, cholerine, and Asiatic cholera, proper. The first, *cholera of complication*, occurs in the course of an acute or chronic disease. Patients are affected with vomiting, and diarrhœa of bilious or serous matters, but rarely of fluid similar to those evacuated in Asiatic cholera. Sometimes there is no vomiting; sometimes, constipation. The tongue was moist, pale, chilled; the abdomen soft, almost always tender, especially about the epigastrium, the face is changed in its expression, (alterée,) the gaze indifferent, the understanding benumbed, but not suppressed. The cyanosis and coldness seldom affected the whole body. The period of reaction varied extremely in violence, in proportion to the intensity of the first stage. Cramps were rare. The mortality was very great. Death took place either in an adynamic state, or with symptoms of contraction of the body, apparently owing to the congestion of the nervous system.

Cholerine is mentioned as being merely "more frequent" than the Indian cholera. Nothing peculiar seems to have existed in its character. It occurred at the end of December, among the sailors.

Your Committee would presume from this mode of expression, and the more so as Dr. Leval mentions great frequency of bowel complaints from slight causes, that the term cholerine is here restricted by Dr. Monneret to the severer cases, only, of the diarrhœas occurring in the city. Else how could their number be spoken of with such limitation?

In the *Cholera* which Dr. Monneret classes as the *Asiatic*, there were peculiarities worth noticing. The cyanosis was almost always partial. It often ceased in from twenty-four to thirty-hours, without, however, the patient being out of danger. The coldness was strongly marked in the hands and feet; but the axilla contrasted strikingly with their temperature, being thirty-six and thirty-seven centigrade, or 96.8 and 98.6. Cramps occurred in about one-fourth

of the subjects. The tongue was humid, cold, never blue; the stomach voluminous, tense, strongly tympanitic, sonorous along the great intestine, and tender in the epigastric and umbilical regions; gurgling in all cases; eight to ten stools per day, bilious or serous, sometimes flaky, and of the characteristic appearance; there was suppression of urine; pulse seventy-two, in the reaction, varying from ninety-two to one hundred and eight, and one hundred and twenty, in the adynamic stage; blood settling in a black mass, in which the serum was contained, the clot, soft and fragile, with no trace of inflammatory crust. Reaction, in mild cases, was prompt; and if it was complete, the patient passed into convalescence. On the other hand, when the cyanosis continued, or diminished but slightly, he soon fell into an adynamic state, marked by red blotches, particularly on the face and hands, the warmth incomplete, stupor, somnolence, convulsive closure of the eye-lids, dryness of the lips, &c. Dr. Monneret believes that manifest hygienic causes contributed to the aggravation of this epidemic; such as cold, crowding, insufficient or unwholesome food, depressing moral emotions, &c., and a diseased condition of certain viscera. All his inquiries convinced Dr. Monneret that the disease was not contagious.

Treatment. The first indication was to cure, as rapidly as possible, all intercurrent diseases, even the mildest, particularly those of the intestines. The Asiatic cholera was often attacked with success by artificial heat, including frictions, and hot baths strongly sinapised. When reaction is established, general bleeding can sometimes be used with advantage, but the reaction must then be sustained by frictions and artificial heat. The repeated application of leeches to the epigastrium and umbilical region produced a perceptible improvement. Emollient fomentations, and enemata with starch and laudanum, completed the treatment of the abdominal symptoms. In the adynamic period, particularly when the cyanosis and algidity had not ceased, blisters to the lower extremities and to the back of the neck produced excellent effects; and tonics were also employed in that stage.

In the modesty with which Dr. Monneret states his treatment and its results, beyond what it is believed was demanded of him, and an apparent fear of claiming too much confidence for his treatment, your Committee believe may be distinguished some of the peculiarities of that school which has smarted so severely under the sarcasms of Voltaire and Moliere. Pity that the service of mankind should be impeded for a joke.

The limited time which yet remains at our disposal, together with the desire to present what readily occurs to us on so important and now urgent a subject as cholera, induces us to entreat the indulgence of the College for offering, in conclusion, some matters less perfectly compiled than even the matter, however defective, which we have already read. The first two favors which we shall ask of

the indulgence and kindness of the College are, permission, in two cases, to quote points believed to be of value, though it is impossible now to make the references. The third is to be allowed to choose a little matter from the Report of the British Parliamentary Commissioners, without any regular order, selecting it by the apparent prospect of usefulness to us at the present juncture.

The first reminiscence we ask to offer, is of a tendency to the belief, among respectable parties, that the cold treatment should be preferred to that by external heat. This is founded, we believe, on direct evidence of a strong kind, that the number of human lives that have survived is much greater by suffering the patient to remain cold; on the fact, familiar to all who have attended cholera patients, that they complain of torture from the hot treatment, and, finally, on the physiological result said to have been obtained by the experiments of Edwards and others, that the flesh of cold blooded animals resisted the approach of local death much longer when kept at a low temperature, than at a higher one. We regret not having at hand the details of this at the present moment; but it seems to us important.

We regret, in the second place, not being able to copy the Public Instructions distributed by order of the Russian Government for the prevention and treatment of cholera. These appeared to us, when we read them, to have been dictated by philanthrophy, medical skill, a sound business judgment, and good sense; and to have had for their object the true service of the Russian Emperor, in the preservation of human life in his dominions, the re-acquisition, as far as possible, of confidence, courage, equanimity, and a sound and quiet judgment; and not at all, or not otherwise than thus, the *glory* of discovery. We remarked, if we may be allowed to quote from memory, the absence of rare and singular or startling novelties; the instructions not even mentioning, we believe, the famous Caucasian Naphtha. The means recommended, were common means, more likely to be successfully employed from their familiarity, and the possession, by practitioners, of a thorough knowledge of them. A government so celebrated as that of Russia for patronizing the profoundest science, will not be suspected of setting too low a value on the labors of men who bring to the investigation of cholera either collateral science, like M. Andral, or the results of careful and conscientious empirical investigation.

The Report of the British Parliamentary Commissioners on the health of towns consists, for the most part, of matter falling within the scope of the labors of our friend, the Committee on Public Hygiene. One of their sections, the suggestions on treatment, may, prima facie, be objected to by some. Prescriptions by act of parliament may certainly sound oddly, but we believe them to be dictated by a desire for the public service. They bring evidence to prove the existence of the predisposing stage, or cholerine, and its frequent, we say gen-

eral, precedence, in the order of time, to the severer disease. They recommend the establishment of dispensaries, to which every person may apply immediately upon the occurrence of symptoms of diarrhœa.

They object to the construction of cholera hospitals; a conclusion at which we confess we are among the parties that feel startled. The reasons assigned are, principally, that the mortality in the hospitals was in general much greater than in private families. The reviewer of the British and Foreign Review justly observes, that this is owing to their being supplied with the worst cases. We will add, with cases treated at first by friends or by practitioners, or suffered to remain without treatment, in hopes of escaping from medicine after all, until they are evidently tending towards dissolution. The just reply to this is, that cholera hospitals should only be constructed or selected, in dry situations, supplied with good air and water, and abundant ventilation and drainage.

We have run over some pages of a discussion on the hypothesis of minute fungi being the cause of cholera. We shall not long detain the members of the Colloge with this inquiry. There is abundant evidence that cholera prevails of preference in moist situations; and generally commences in damp quarters of towns. In damp situations, with the addition of heat, the nidus of fungi is generally found. It is thought, too, that electricity has something to do with the growth of the substances which so suddenly takes place, in particular instances, after storms. We have seen no explanation why cholera, if it depend on fungi, should occur so freely in winter, and in cold climates; circumstances unfavorable to the development of fungi.

This hypothetical explanation, though the honored name of Henle is attached to it, previously to that of Dr. Charles Cowdell, appears to us unworthy of science, and only excusable in a naturalist who may throw out probable or plausible points of inquiry which he wishes the investigators of another science than his own to explore. It has long been observed, as a melancholy reflection, that the climates most favorable to increase of the number of men and animals were those most subject to terrible and destructive epidemics; and that disease and regeneration seemed, in the scheme of things, to go much together. In situations replete with heat and moisture, and subject to destructive pestilences, all vegetable and animal matter is, in general, more rapidly developed, among others the family of fungi; but to classify the production of cholera among the wonders of the cellular and microscopic plants, seems to us purely the work of an overstrained imagination, thirsting for the distinction of novelty.

The opinion so confidently advance by Copland, in his admirable dictionary and elsewhere, and so earnestly seconded by his American editor, Dr. Charles Lee, that cholera spreads by contagion,

meets but little encouragement in the opinion of the times. Every body grants, that if cholera be contagious, first, it is rarely so, and, secondly, that it is abundantly evident before the whole world that quarantines and cordons of health cannot prevent it from travelling from country to country. The practical question is clearly decided on the non-contagionist side; leaving the arguments of the gentlemen we have named with no other object than the establishment of an abstract medical truth, of little applicability to useful purposes. Among the arguments against contagion, it is urged that the cases in which that mode of diffusion has been alleged to be proved, are few, doubtful, erroneous in part, and in the opinion of some, altogether so.—*British and Foreign Review; July*, 1848, *p.* 66. Into the particulars of the instances cited by Drs. Copland and Lee, we have not time to enter; but we doubt whether it would be proper to occupy the College with them were it otherwise. These authors have, however, on their side the very respectable names of Dr. Ogier Ward, and, cited by themselves, the anterior authorities of Moreau de Jonnès, Russell, Barry, Kennedy, and Orton.

A conversation took place in reference to the prevailing Variolous Epidemics.

Allusion was made by Dr. Condie to cases of variolous disease which had occurred under his notice, in which it was impossible to trace any source of contagion.

Dr. Gibbons remarked, that scarcely a year had elapsed since he had commenced the practice of his profession, in which he has not met with one or more cases of variolous disease, where there was no traceable source of infection.

It was suggested by some of the Fellows, that when sporadic cases of variola occur, at a period when the disease is not epidemic, without apparently any source of contagion, the poison may have been communicated by the clothing of persons who had been previously in contact with the disease.

Dr. Morris stated, that during a slight prevalence of variolous disease, he had met with some cases which he could not trace to contagion. While in attendance on the first small-pox patient to whom he had been called at that time, he was sent for to visit a family in which no small-pox had appeared, and the members of which had not been exposed to the variolous contagion. As he entered the room and sat down, a lady, who was labouring under severe mental emotion, seated herself beside him, laid her head upon his shoulder, and sobbed. Ten days subsequently, she was attacked with variolous disease.

Dr. Stille remarked, that a somewhat similar case occured some

years since to one of the Fellows of the College. Coming home one day wearing a cloak, in which he had visited a case of small-pox, as he entered the door of his house his wife ran to meet him, and threw herself into his arms. Soon afterwards she was attacked with the disease.

Stated Meeting, November 7th, 1848.

Dr. Wood, President, in the chair.

Present, thirty-two members.

The following donations to the Library were received:

Transactions of the American Medical Association. Vol. I. From the Association.

Code of Ethics of the American Medical Association. From the Philadelphia Delegation to the National Medical Convention of May, 1847.

Elements of General Pathology. By Alfred Stillé, M. D. From the Author.

Apuntes acerca del peligro que hay en usar algunos colirios mal formulados ó mal preparados, en los casos de ulceras en la Cornea. Por el Dr. Florent Cunier. From Dr. Hays.

Dissertationis de ulcere ventriculi perforante, autor E. A. Dahlerup. From Dr. Hays.

Annual Report of the Regents of the University of New York, with an Abstract of the Returns of Meteorological Observations for the Year 1847. From Dr. Hays.

A conversation took place, in reference to the pathology of hydrophobia, particularly as to the question whether the disease so denominated, was a specific affection, resulting from a poison introduced into the system by the bite of a rabid animal.

While, on the one hand, it was contended, that the disease presented in the totality of its symptoms a well-marked character, distinguishing it from all others, and that these symptoms resulted only in those individuals who had been some time previously bitten by a rabid animal, it was, on the other hand, objected, that the cases of hydrophobia on record differed very materially in the symptoms by which they were characterized; that in many cases the symptoms have a very strong resemblance to those of traumatic tetanus; that no one of the symptoms described as peculiar to hydrophobia is truly pathognomonic, being met with in cases in which there could be no suspicion of their being produced by a special virus; that all the symptoms of hydrophobia have been produced by the effects of cold, suddenly suppressing a habitual sweating of the feet, &c.; and finally, that the very irregular and often prolonged period which elapses,

between the insertion of the supposed virus, and the occurrence of the disease, is opposed to the generally received opinion of its cause—the period of incubation of each of the known morbific poisons being very nearly uniform.

Stated Meeting, December 5th, 1848.

Dr. Wood, President, in the chair.

Present, twenty-six members.

J. Pereira, M. D. of London, and Robert Christison, M. D., Professor of Materia Medica in the University of Edinburgh, were elected Associates.

A Communication was received from Dr. S. G. Morton, in relation to the Obituary Notice of the late Dr. George M'Clellan, which he was appointed to prepare; when, on motion, it was Resolved, that the Secretary be requested to inform Dr. Morton, that the College will be pleased to hear the obituary notice of our late Fellow, at as early a period as he can make it convenient to read the same.

A Communication was received from Dr. Frederick S. Eckard, stating, that in consequence of his permanent removal from Philadelphia, his Fellowship with the College had ceased.

A conversation took place, in reference to the preventive powers of vaccination, and the prevailing catarrhal epidemic. In course of the conversation, it was stated, by two of the Fellows, that in several families affected with varioloid, which had fallen under their notice, the only individuals who had escaped, among the younger members, were those who had been re-vaccinated in the Public Schools by a Committee of the College, in the summer of 1846.

Dr. Evans related the following case of disease.

A female of very feeble constitution, who had been for a long time confined to her chamber in consequence of spinal disease, whilst lying upon her bed, eating a portion of sponge cake, complained of a sense of choking, and immediately a tumor was observed to rise on the right side of the neck. Dr. Swift was first called in, and noticed the tumor gradually to enlarge, until it attained the size of a hen's egg; the patient complained of a sense of constriction and numbness extending up the neck. When Dr. E. saw the patient, which was shortly afterwards, he found the tumor upon the neck to be one inch above the sternum, immediately

over the right carotid at its bifurcation, and beneath the sterno-cleido-mastoideus muscle, and fascia of the neck—there was no discoloration of the skin—the tumor was dense, inelastic, and perfectly circumscribed, and pulsated when the hand was laid upon it—the patient's head was bent over to the right side—she complained of numbness of the right side of the neck, and of overfulness of the head. It was at first supposed that the tumor might be aneurismal—at the same time, this conclusion was opposed by the dense and circumscribed character of the tumor;—the pulsatory movement might be referred solely to its position over the carotid artery, as no pulsation of the tumor itself, could be detected. Dr. E. not being able to satisfy himself as to the exact character of the tumor, requested Dr. Hartshorne to see the case with him. Dr. H. considered it not to be aneurismal, and suggested that the tumor might have been gradually forming without being observed, in consequence of its having been bound down by the muscle and fascia of the neck; its apparently sudden appearance being occasioned by its escape from its previous confinement. Dr. Evans suggested the possibility of the tumor being probably caused by an enlargement of the thyroid gland. A compress wet with a solution of potass. hydroid. was applied, and covered with a piece of oiled silk, over which another compress was laid and kept constantly wet with cold water. Leeches were deemed inadmissible in consequence of the debilitated condition of the patient. The tumor continued of the same size for three days; on the fourth day it began materially to change in its appearance. It had extended over the trachea to the left side, had become more compressible and soft, with a sensation as though it were upon the point of bursting during the paroxysms of coughing. There was now sufficient evidence that the tumor was caused by an enlargement of the thyroid gland. It has since then gradually diminished in size. Upon the first appearance of the tumor, the patient's breathing was somewhat oppressed; there was a sense of constriction about the throat, with a disposition to cough, attended with a feeling of great distress.

Dr. Evans wished to learn from Fellows present, whether any of them had met with a similar case.

Dr. Parrish stated, that he had seen a case bearing considerable similarity to the one just described. A lady became greatly alarmed from the sudden occurrence of a swelling on the side of the neck, with considerable oppression of breathing. When Dr. P. saw her, the tumor was of the size of a walnut, elastic, and over the situation of the thyroid gland. The patient was asked to swallow, and in the act of so doing, the tumor was seen to move. Particular inquiry was made as to the previous existence of a swelling in the part, which the patient answered in the negative. It continued to enlarge for two or three days; leeches and cold applications, followed by the ointment of iodine were applied. The tumor gradually dis-

appeared. Dr. P. concluded that the tumor in this case had resulted from an attack of acute inflammation of the thyroid gland. The sense of oppression, he was inclined to believe, was partly nervous from alarm at the sudden occurrence of the tumor.

Dr. Evans remarked, that in the case related by him, there were no symptoms of inflammation.

Dr. Fox stated that in 1831 or '32 a female relative of his, residing in Baltimore, came to Philadelphia to consult Dr. Physick in consequence of a tumor in the neck, which had occurred suddenly, some time previously. Dr. F. thinks that Dr. Physick mentioned that he had seen similar cases before. The tumor had never attained any great size; not beyond that of a walnut. The tumor had existed about a month previously to her coming to this city. It gradually disappeared.

Dr. Hays referred to a case of a similar character which occurred some time since in New Orleans.

Dr. Condie inquired whether either of the patients in which the tumefaction of the thyroid gland occurred, had been labouring under disease of the spleen, or general congestion of the chylopœtic viscera. He made this inquiry from the fact that Dr. Heinrich, a recent German writer on diseases of the spleen, describes instances in which a sudden enlargement of the thyroid gland took place, in consequence of the functions of the spleen becoming suspended, from a diseased condition of that organ.

Dr. Evans stated, that his patient had been suffering for a long time from disease of the spine; and from the necessity of her continued confinement in one position, considerable engorgement of the liver had ensued. She has had three attacks of hæmoptysis.

Dr. Parrish stated that his patient had suffered from repeated attacks of intermittent fever.

Dr. Bache doubted whether the tumefaction of the thyroid gland in the cases related this evening, could with propriety be ascribed to inflammation. The suddenness of its occurrence, and the absence of pain, &c., precluded the idea of the gland being inflamed. He should be inclined rather to ascribe it to a rupture of the vessels of the part, with sudden extravasation of blood into the substance of the gland. We know that tumefaction of the thyroid body from this cause, occasionally occurs during the violent throes of labour. A case of this kind he saw many years ago, in consultation with the late Dr. Povall.

Dr. J. M. Paul read the following

OBITUARY NOTICE

OF

HENRY NEILL, M. D.

LATE VICE PRESIDENT OF THE COLLEGE.

In preparing a biographical sketch of the departed, we are sometimes called upon to portray the child of genius, who bursts upon our view like the rocket, scattering brilliant gems of thought and fancy—a moment burning—then fading into darkness. But such is not our present duty.

The career of the ever-lamented Neill, late Fellow and Vice-President of this College, is better imaged forth by that of the star, which appears in the silent twilight. It rises and brightens as we gaze, and, in its quiet loveliness, becomes a light to the wanderer, a guide to the wave-tossed mariner, a joy to the little cottage-child, and an emblem of hope and peace to the hoary-headed-sage. True, many a man walking with eye and soul chained down to the sordid and the earthly, marks it not; but, still it shines on in its calm beauty through the live-long night, blessing and blessed; and even then, it is not lost, but gently mingles its modest beams in the full-orbed glory of opening day.

So think we of him for whom we mourn. No striking incidents distinguished his career; no brilliancy of unusual genius illumined it: but his influence, though silent and unobtrusive, was steady, gentle, pervading, and pre-eminently beneficent. It was that which flows from a clear and sanctified intellect, a loving heart, and a pure and upright life.

Dr. Henry Neill was born at Snow Hill, on the eastern shore of Maryland, A. D. 1783. His father, Dr. John Neill, was a physician, and the son of an Irish lawyer of strong republican feelings.

Henry's education was principally acquired at the county academy, where he prosecuted the classics with success, as is witnessed by his Valedictory Address to the Trustees and Pupils, which is still preserved. His interest in these studies continued during his after-life; and from his experience of their value, he failed not to impart to all his sons the advantages of a thorough classical and collegiate education.

Whilst he was still quite young, he came to Philadelphia, and entered the office of Dr. Church, a celebrated lecturer on Obstetrics, with whom the late Dr. James, professor in the University of Pennsylvania, was associated. Whilst he was deeply interested in his medical studies, he still found sufficient time, during their progress, to acquire a good knowledge of the French, and to give also some attention to

general literature. In 1807, he graduated as a Doctor of Medicine at the University of Pennsylvania.

He married in 1806, Martha R. Duffield, a daughter of the late Dr. Benjamin Duffield, and settled in Southwark. The death of Dr. Church, (who had married another daughter of Dr. Duffield,) soon after, threw the large practice of that gentleman into his hands.

Dr. Neill's devotion to the duties of his profession was untiring. He read much, observed carefully, thought philosophically; consequently, his judgment was excellent, and upon it he early accustomed himself to rely, seldom resorting to consultations.

In 1812, he became a communicant in the First Presbyterian Church of this city, thus publicly recognising that sense of his relations and obligations to the Almighty, which was the main-spring of his after conduct, both as a man and as a medical practitioner. Daily he looked for, and confided in divine direction and assistance. Fearing God, he knew no other fear. Therefore, whilst he was modest, retiring, and unassuming as a child, he was ever firm, independent, dignified, and imperturbable. Those who were best acquainted with him, scarcely knew which most to admire, the sweet simplicity, humility, and kindliness of heart, which cast a charm over his whole appearance and manner, or the lofty moral courage which ever animated him in the path of duty, raising him above all dread of man and man's opinions, and enabling him to go forward without shrinking, through scenes the most trying and severe.

He always expressed himself as fond of Surgery, but he practised Obstetrics more extensively and successfully, and manifested peculiar facility in the use of instruments. As an evidence of his reputation in this department, it may be mentioned, that he was solicited to deliver a course of lectures upon Obstetrics, in the Jefferson College of this city. He was calm and cheerful in his intercourse with the sick, courteous and refined in his deportment, and regardful of their feelings, whilst he was as ever ready to administer consolation to their minds, as he was to afford relief to their bodily ailments. No wonder that he became peculiarly endeared to his patients, and that the families who have enjoyed his services, feel that they have lost not only an excellent physician, but a valued friend and counsellor.

We have said that his private practice was large. Until it was interrupted by the distraction resulting from a severe domestic affliction which he was called upon to endure, it yielded him $4,000 a year. Nevertheless, he bestowed much time upon several of the public institutions of Philadelphia. Long after his graduation, he was connected with the City Dispensary. He attended the Almshouse for years, until in fact its removal took place to the other side of the Schuylkill; he also occupied the post of physician to the Walnut Street Prison, to which Dr. Bache succeeded. To many an inmate of these dwellings of poverty and distress have his visits

been as sunshine; to many a stricken and sinking soul has his kind words of sympathy, of holy counsel, and of earnest prayer, come as messengers of mercy from above.

Doctor Neill was chosen a Fellow of the College of Physicians of Philadelphia, on the 2d of July, 1811. His election to the important and delicate office of Censor, took place in 1818. This office he filled very ably for many years; and by the excellence of his character, and the soundness and impartiality of his judgment, he secured the respect and confidence of his colleagues. In the month of July, 1844, they evinced their appreciation of his merits, by electing him Vice-President of the College, and thus associating his name with the honoured ones of Parrish, Otto, and Hewson, his immediate predecessors in that office.

It is to be regretted, that with the capacities and opportunities for observation possessed by Dr. Neill, he should have contributed so little to the medical literature of the day. He was unambitious to appear in print; and when we consider, that besides the labours of his profession, he conscientiously fulfilled the arduous and responsible duties of a Ruling Elder, in one of the largest and most influential churches in our city, we cannot be surprised that he found but little time for authorship. He furnished, however, for the press, several articles of great practical value, which were published in the North American Medical and Surgical Journal.

From the commencement of his professional career, Dr. Neill continued his residence in Philadelphia. A large family grew up around him, to admire and emulate his virtues, to enjoy and fondly to return his love. He was favoured, too, by the friendships of men able to prize his cultivated mind, his elevated principles, his amiable and courteous manners, and his warm, open and unsuspicious heart. That entire absence of ambition and ostentation, which perhaps prevented his just appreciation by casual observers, only endeared him the more to those who knew him best. Our late lamented President, Hewson, that sound judge of character, and shrewd discerner of true merit, was his warm personal friend; and many years of the closest intimacy, testified to the affection and esteem with which he was regarded by his beloved and honoured pastors, the late Dr. James P. Wilson, and the Rev. Albert Barnes.

But neither the usefulness nor the endearments of the most valued life, can make it ours for ever. It was when absent from his family, on his way, with the writer, to visit his family, now residing at Belvidere, New Jersey, September 22nd, 1845, that Dr. Neill was seized with symptoms of fatal illness. Soon after his arrival, his disease assumed the character of a decided gastro-enteritis; and his constitution, tried by many years of professional toil and anxiety, and impaired by previous similar attacks, speedily gave way. He died on the fifteenth day of his illness, Oct. 7th, 1845, in the sixty-fourth year of his age. He retained to the last, entire possession of his

faculties. He had lived the life of the Christian, and his was the Christian's death. Unshrinkingly, he entered "the dark valley," confiding in the strength and merits of that Redeemer, to whom he had so long before entrusted his immortal interests.

Forgetful of self, his last words were breathings of tender affection to those dearest to him on earth, and messages of kind and earnest warnings to some of his patients, who, he feared, were passing on to eternity, unprepared.

His remains were removed to Philadelphia and interred on Pine street. On a subsequent Sabbath, a large and deeply affected audience met in the sanctuary, where he had so often sat, blameless and beloved, to listen to a funeral discourse preached on the occasion of his death, by the Rev. Albert Barnes. And now, that, (in the words of that eloquent divine) "he has ascended the hills of light and salvation, and reached the realms over which death will never throw his gloomy shadows," let us, Fellows of this College, look up and rejoice,—and profit, by the example of that fairest ornament of our profession,—a truly Christian Physician.

Stated Meeting, January 2d, 1849.

Dr. Wood, President, in the chair.

Present, twenty-one members.

Samuel Jackson, M. D. Professor of the Institutes of Medicine in the University of Pennsylvania, was admitted as a Fellow.

Frederick S. Eckard of Montgomery county, Penna., was duly elected an Associate.

Dr. Griscom presented and read the following:

Annual Report on Midwifery.

Sterility.—Dr. Rigby has published a series of papers on this subject in the Medical Times, an abstract of which is given in Part 17 of Braithwait's Retrospect. Dr. Rigby divides the subject into *Organic Sterility*, or that in which the structure of the organs concerned in reproduction are in fault; and sterility from derangement of the functions of those organs. Under the head of organic sterility, he dwells upon that class of cases in which the organs of generation are generally well formed, but the os and cervix uteri so contracted as to prevent conception. This we believe to be a very common cause of sterility, and one which is frequently accompanied by dys-

menorrhœa. The treatment of these cases, (excepting what was obviously demanded for derangements of other portions of the system) consisted principally in overcoming this contracted condition by mechanical means, dilators, metallic tents, and the knife. One case is reported in which dilatation with bougies, &c., was unsuccessful until the cervix was divided in its anterior wall with the knife, and a metallic tent worn for a fortnight without inconvenience, when the incision healed; four months afterwards the patient was reported to be in the fourth month of pregnancy. Dr. Rigby remarks, "The permanency of the effects produced in the os and cervix by wearing a metallic plug or tent is various. In some cases the part remains dilated for some little time, and now and then appears to continue so; but in many, as in the present case, it contracts immediately after the removal of the tent, and quickly returns to its former condition. As the metallic tents were expelled each time that the catamenia came on, we may, I think, infer that the uterus possessed a fair amount of contractile power, and that, therefore, the obstruction to the discharge of the catamenia from the nearly closed condition of the canal must have been very considerable. The termination of the case in pregnancy is what I had scarcely hoped for; the general debility and haggard appearance, the long history of previous ill health, and the unfavourable state of the uterus for conception, prevented any expectations of such an event; but after removing this constant source of annoyance and irritation to the system by dividing the cervix, and thus effecting a permanent dilatation of the canal, the health began rapidly to improve; and this favorable state was still further promoted by a change of residence to another part of England."

In considering sterility from functional derangement, Dr. R. gives some interesting observations on inflammation of the ovaries as a cause of dysmenorrhœa, menorrhagiæ, and sterility.

Dr. Raynard has presented to the Academy of Medicine of Paris, a memoir of which the following are the conclusions:

1. The cavity of the neck of the womb may be the seat of strictures, congenital or accidental, which are to a certain extent analogous to stricture of the urethra. 2. These modifications in the structure of the uterus induce serious disturbances in its functions, rendering menstruation and conception painful; and when occlusion is complete, impossible. 3. This state of the uterine neck is generally indicated by a thick, white, viscid discharge. 4. This condition, by keeping up continued uterine congestion, may give rise to serious organic diseases. 5. Stricture of the uterine neck may be suspected in cases of dysmenorrhœa and sterility which cannot be otherwise accounted for. 6. The treatment of urethral stricture is equally applicable to that of the uterine neck. 7. The best treatment consists in the introduction of graduated bougies, by means of the speculum, and allowing them to remain for an hour or two.

8. If this should fail we should have recourse to incisions of the neck. Am. Jour. of Med. Sciences for April, 1848, from Providence Med. and Surg. Jour. of January 6, 1848.

Signs of Pregnancy.---Dr. Golding has published, in the British Record of Obstetrical Medicine, an elaborate paper on *kiestein as a test of Pregnancy.* After showing the uncertainty of each of the ordinary tests, he proceeds to prove that the kiestein is valuable in being available during the whole period of gestation; in its existence alike in first and subsequent pregnancies--in being uninfluenced by the age, temperament, or habits of the female; in being found in pregnancy alone, and disappearing during lactation.

He does not think that kiestein is ever absent during the whole period of pregnancy.

The following are the general conclusions derived from his observations:

1st. Coetaneous with, or shortly subsequent to conception, the breasts assume a secreting action, the product of which, eliminated by the kidneys, forms kiestein.

2d. If this action of the mamma be disturbed it is the result of disease and may be removed by remedial means.

3d. Although kiestein is not apparent, it may still not be absent, but may exist in such small quantities as not to be appreciable.

4th. The essential character of the pellicle are its iridescence, its fatty nature, and its cheesy odor. It also prevents the urine from becoming putrid as soon as it otherwise would.

5th. As the secretion of kiestein is a vital phenomenon resulting from conception, it is often available before other signs of pregnancy.—*Ranking's Report, in No. 7, of the Abstract.*

Dr. Albert is quoted in the British and Foreign Med. Review, for July, 1848, as stating that of all the signs of pregnancy hitherto known, that derivable from the observation of the dark red color of the vagina is the best; being seen by the aid of the speculum at an early period of pregnancy, and proceeding progressively with the development of the uterus;—besides finding the theory confirmed in examining a great number of animals, he is reported as having tested it successfully in about thirty cases of the human female.

The common opinion in regard to the motions of the fœtus as a test of pregnancy and of the period of its advancement, is called in question by Dr. Tyler Smith, in his lectures on the physiology of parturition; he denies that the sensations experienced by the mother are caused by motions of the fœtus, and affirms that they are the result of peristaltic movements in the uterus itself. "His reasons for thus thinking are these. In the first place, these movements are sometimes felt as early as the fifteenth week, when the possibility of their being produced by the fœtus is out of the question. Again, the movements are often so intricate, and the points at which the appa-

rent contact of the fœtus takes place so numerous, that they could not be produced but by the simultaneous movements of several fœtuses. The emotions of the mother also have considerable influence over them, which is more consistent with their uterine than fœtal origin. The same may be said of the effect of cold on the abdomen. The movements are moreover felt when subsequent events prove the child to have been dead at the time, also when the uterus has contained hydatids. On the other hand, they have been absent and the child consequently pronounced to be dead, when it has been alive."

Dr. Smith cites the frequent cases in which the fœtal limbs are marked by continued pressure of the one upon the other as incompatible with frequent change of position. He denies that volition or cerebral voluntary movement can take place before respiration. He asserts that emotion is wanting, the reflex action being obscured by the protection afforded by the liquor amnii, and that the movements are equally strong in anencephalous fœtuses.—*London Lancet, of March* 11, 1848. These views are interesting from their novelty, and give evidence of a commendable spirit of inquiry on the part of the author; but in the opinion of your reporter, the objection of the author to the commonly received opinions on the subject are not always valid, and his reasoning in favor of his own views is by no means conclusive.

Abortion,—The same author, in one of his lectures, gives a systematic view of the various causes of abortion; and sets forth a number of well known principles and facts bearing upon the subject; he attaches great importance to the menstrual periods as periods of abortion, and gives a table by which these can readily be reduced from calendar months.

Dr. Radford, in the British Record for March 1, 1848, makes the following practical remarks on this subject:

The finger must never be introduced within the os uteri during the early period of abortion; indeed the length of the cervix offers an insurmountable obstacle to its coming into contact with the ovum, and the attempts cannot be made without great hazard. The body of the uterus is also changed by the abortive process, so that its tangible characters, presented to the finger, are very different to those of the same part, when in a normal gravid state at the same date. It is found to be enlarged in consequence of, and in proportion to the addition it has received from the expansion of the cervix; * * * If after a careful exploration, we ascertain that the figure, length, and thickness of the cervix uteri are normal, it is our duty to adopt every means calculated to preserve the ovum and thus subdue the symptoms; but, on the contrary, if we discover that it is shortened, either partially or entirely distended, and that the organ has assumed more or less the oviform shape, we should

assist by all proper means the expulsive action, whilst at the same time we pay proper attention to those contingent circumstances which are attended with danger. A case is quoted in the 7th number of Ranking's Abstract, from the Gazette Medicale, of a lady aged thirty-two, who became pregnant for the first time at twenty-one, and suffered but little from the usual inconveniences of her condition until the sixth month, when, without apparent cause, she was seized with intense pruritus of the whole surface of the body. The legs, thighs, and genital organs were first attacked, but towards the eighth month, the itching extended to the palms of the hands and the soles of the feet, the rubbing and scratching to which she was irresistibly impelled, caused premature confinement, with immediate cessation of the cutaneous irritation.

The patient again became pregnant, and as before, ailed nothing till the sixth month, when the same itching returned. This time she miscarried at seven months. The same series of events occurred, in all, eight times.

Term of Natural Pregnancy.—Dr. Leray has arrived at the following conclusions on this subject:

1. The time of natural, as well as of premature delivery is directly referrible to menstrual periods.

2. The return of these periods, throughout the course of pregnancy is in relation to the date of the month corresponding to that of the day when the menses, at their last occurrence, began to appear, whatever may be the number of days reckoned each month.

3. The premonitory signs of labor at full term, and of premature delivery, occur, in the greater number of women, on the day of the month pointed out, or during the seven following days.

4. Nevertheless, the commencement of the expulsive pains may date in a normal manner, much less frequently, from the fifteenth day of the tenth month.

5. Every delivery at full term, or premature, which is accomplished before the right period of the month, may be considered as being in advance.

6. Every accouchment which is effected after the seventh day of the same period may be considered as delayed.

7. The pre-occurrence of labour is much less common than its delays, and most frequently they do not precede the due term more than five days.

8. Delays, on the other hand have not such limitations.

9. Lastly, in either case, the causes of advance or delay are very appreciable, although there are cases which it is impossible to fix with certainty.

These observations are based upon seventy-eight confinements, in which Dr. Leray had taken care to mark the last menstrual period, and these observations agree with the researches of other observers.

Dr. Leray infers that when labour is to be induced artificially it is the duty of the practitioner to choose the period in accordance with these principles.—*London Lancet, January* 15, 1848.

Hemorrhage.—This fruitful source of difficulty to the practitioner, and danger to the patient, has received a large share of attention from the profession during the past year.

Dr. Waller reports a case, in the Medical Times for January, 1848, in which hemorrhage at the eighth month had reduced the patient to an almost hopeless condition; countenance blanched, pale and livid lips, cold extremities, laborious respiration, general coldness of the surface of the body, and pulse scarcely perceptible. In short every thing indicating approaching dissolution. Stimulants freely given failed to produce even a temporary improvement. Transfusion was resorted to. "When about five ounces of blood had been introduced the amendment was evident," but the blood flowing sluggishly from the arm of the female who supplied it, the operation was suspended, and "nourishment and stimuli" resorted to. In about two hours she again began to sink, the unfavorable symptoms returned, accompanied by jactitation; about four ounces of blood from the same individual produced no relief; the blood again flowing sluggishly; but an injection of two ounces, which flowed in an impetuous stream from the husband's arm, produced a marked improvement in the patient's pulse. When nine ounces had been injected the countenance was much improved; a slight color was perceptible in the cheeks, and some pain in the arm was complained of; after the introduction of four ounces more all the symptoms of immediate danger vanished; the relief was perfect; "she only complained of excessive fatigue with an inclination to sleep. After a sleep of some hours, a portion of the detached placenta was expelled, and a dead child and the remainder of the placenta followed; the woman recovered.

W. Newsham, of Farnham, England, publishes two papers in the British Record of Obstetrical Science, for March 1 and May 1, 1848, on the subject of uterine hemorrhage. His views of the nature and treatment of hemorrhage, are in the main judicious, but have little or no novelty. His testimony to the usefulness of opium in cases of extreme exhaustion is decided; after describing its beneficial influences, he says, "to secure these effects an ordinary dose of laudanum will not suffice, or a single dose however large; it must be given, in the first instance, in a dose pre-eminently large, and this must be frequently repeated so as to keep hemorrhage in check and support the vis vitæ, while other means may be employed. There is nothing to fear from large doses under these circumstances, they will not produce a narcotic effect while their influence in supporting the vital power is undeniable.

Presentation of the Placenta.—The proper management of this serious occurrence in labor, is still the subject of animated discussion. While Professor Simpson's plan of detaching the placenta finds favor with some, others regard it as a practice the applicability of which is very limited. The judgment of the profession, as far as recorded, appears to be, that the entire separation of the placenta after the manner recommended by Professor Simpson, is justifiable under some circumstances of extreme danger to the mother; but that an operation, which almost necessarily destroys the child, and is at best uncertain as a beneficial agent to the mother, should not to be resorted to unadvisedly.

Dr. Waller, of St. Thomas's Hospital, records his views on this subject, in the Medical Times of January 8th and 29th, of the present year, and although he states, "that he entered upon this inquiry with a strong prejudice against the plan of treatment recommended by Professor Simpson, he makes the following comments on the cases he has given; thirty-three in number. It will be noticed that in several cases the placenta was detached before the birth of the child, and in every such instance the bleeding ceased, not for a time only but entirely. * * * In another case the plan proposed by Dr. Simpson was exposed to as severe a test as its most determined opposers could desire; for in this instance the placenta was entirely detached from the uterus without rupture of the membranes, for at least fourteen hours before the birth of the child; the effect of this mode of proceeding being the entire suppression of the bleeding; this has been the uniform result in all the cases I have had an opportunity of observing; there has not been a mere temporary arrest but a permanent stoppage of the flooding. Although it would be presumption to draw a definite conclusion from the limited number of cases which have been recorded, yet I cannot help considering it highly probable that * * * it will be found, when flooding occurs in placental presentation from a partial detachment of the organ, its complete separation will be followed by an entire cessation of the flow." Dr. Waller dissents from the theory of Professor Simpson, that in these cases the blood proceeds entirely from the exposed orifices of the placental sinuses. (*Braithwait's Retrospect.*) On the authority of the Monthly Journal for March, 1848, Brathwait's Retrospect quotes a number of cases confirming Dr. Simpson's view; one of them is remarkable; it is thus related; "Dr. Woodward met lately with the following abnormal expulsion of the placenta in a case of twins. After the birth of the first child, the second presented naturally, when the membranes ruptured a considerable quantity of blood escaped along with the water." On making an immediate examination, Dr. Woodward discovered a placenta lying in the passages; on removing which, he found it to be that of the infant still within the uterus; as the bleeding did not continue, he left the infant to be expelled by the uterine

contractions. It was not born till twenty minutes after the placenta had come away; but although still born, it revived on the ordinary means being used and has still continued to do well; the placenta of the first infant came away afterwards in the usual manner. A similar case occurred in the practice of your reporter, in the early part of last year. Hemorrhage with but little pain had occurred for several days; an examination disclosed the placenta presenting fairly over the os uteri. The vagina was carefully plugged and the recumbent position enjoined, by which means the flow was restrained within moderate limits. Labor pains at length ensued, but so moderately that he left, from time to time, to attend to other duties. On his return after one of these short intervals of absence, he found the placenta expelled from the vagina; the hemorrhage had ceased, and the pains being now forcible, the child was expelled in about five minutes after his arrival; the nurse reported that the placenta had been expelled fifteen or twenty minutes previously. The child was apparently lifeless, but was resuscitated after prolonged artificial respiration, and eventually did well.

Rupture of the Uterus.—The Fellows of the College, are doubtless familiar with the valuable monographs of Dr. Trask on this subject which have been published in the American Journal of Medical Sciences. Dr. T. has collected three hundred and three cases, taken from various authorities. They are classified under the heads of—

1. *Cases of recovery from rupture occurring during gestation;* of these he gives twelve.
2. *Cases of rupture before the full period of gestation which did not recover;* of these he gives twenty-six.
3. *Cases of recovery from rupture at the full term of pregnancy;* of these there are seventy-nine.
4. *Cases of rupture at full term proving fatal;* of these there are two hundred and six.

From these cases Dr. Trask enters into an inquiry regarding the causes, symptoms, pathology, and treatment of the accident.

He divides the *causes* into *predisposing* and *immediate.*

Amongst the *predisposing* causes, contraction of the pelvis, and alteration of the uterine stricture, by thinning and softening are the most prominent. The *immediate* causes referred to are, first, uterine action, either natural, or increased by the operation of ergot, or alcoholic stimulants; and, secondly, external violence, as blows or falls upon the abdomen, and forcible attempts to induce artificial delivery. The circumstance which Dr. Trask considers as *diagnostic* of the accident, is a receding of the presenting part, which he says almost always happens when the rupture is at the fundus, or in the body, very often when it is at the cervix, and some times when it is confined to the vagina. Dr. Trask's papers enable

us to advance but little in our ability to from a *prognosis* of the effects of this accident, although most practitioners will probably learn from it that the accident is less fatal than they had previously believed.

In reference to its *treatment* the deduction of our author is, that the practice of leaving the patient to nature is, in most cases, unjustifiable. The testimony of experience being clearly that judicious interference by *gastrotomy* or turning, and especially the former, materially increase the probabilities of a favorable termination.

Occlusion and Rigidity of os uteri, and vagina.—The same author publishes in the Am. Jour. of Med. Sciences, an article on this subject. Like his monograph on the rupture of the uterus, this consists of abstracts of cases, from various sources, with such commentaries on them, as their classification and comparison suggest. Of complete occlusion of the os uteri at the end of pregnancy he gives twenty-one cases. The author recommends hysterotomy in these cases, and deprecates the practice of waiting until the strength of the woman is exhausted. In two of these cases, the lesion could be traced to inflammation following severe instrumental labour; in another, to inflammation after an ordinary labour; and in another to inflammation following a previous miscarriage. In one instance it was caused by inflammation succeeding a descent of the womb into the vagina after severe vomiting. In two it was the results of attempts to produce abortion, and in one it appeared due to a congenital malformation.

Under the head of "Partial Closure of the os uteri," our author gives twenty cases of rigid os uteri, sometimes accompanied by a change of structure; the *causes* of these, like the former, he considers to be inflammation from injuries, and also organic disease, and the proper treatment, incision of the rigid os before the strength of the patient is exhausted.

The paper closes with twenty-seven cases of occlusion and contraction of the vagina. Severe previous labour appears to have been the cause of most of these. In thirteen, the obstructing lesions were divided, and all but one relieved; while in several of the cases which were left to nature, rupture of the womb and fatal exhaustion followed. Dr. Trask infers "that while abandonment to nature is attended with great risks, division of the stricture by the knife is almost perfectly safe."

Dr. G. S. Bedford of New York, reports a case of vaginal hysterotomy and subsequent delivery with the forceps, in the April number of the Am. Jour. of Med. Sciences. The attending physician, Dr. Clinton, was unable to find the os uteri, and supposed it to be a case of malformation of the uterus. Dr. Mott who was called in consultation, was equally unsuccessful. The labour pains continued with violence, and at the expiration of thirty-six hours no

change had taken place, and they began to apprehend rupture of the uterus. After forty hours of labour had elapsed, Dr. Bedford joined them in consultation; he decided that the os tincæ was obliterated, and proceeded to perform the operation of hysterotomy, by "making a bilateral section of the neck of the womb, extending the incision to within a line or two of the peritoneal cavity." The head of the child could now be felt, and the pains continued with violence, but there was no progress; "the neck of the womb was extremely hard and resisting, and presented to the touch after the incision a cartilaginous feel." She was now left for about five hours; at the expiration of this time, notwithstanding "severe" pains, no impression had been made upon the opening. An incision was now made through the posterior lip, and "a weak solution of tartar emetic was administered." After six hours more of severe suffering from violent pains, little or no change had taken place; Dr. Mott in the absence of Dr. B., fearing rupture of the uterus, enlarged the incisions already made, and also cut towards the two ishiatic bones. In nine hours more, during which time some repose had been obtained through the agency of a Dover's powder, the opening had dilated somewhat, "but the head had not begun to engage in the pelvis." "There was much heat in the parts, and the scalp was corrugated." The pains continued with regularity, losing nothing of their violence, for seven hours longer, when the patient's strength was evidently giving way, and her pulse rose to 140. The head was still above the superior strait, not yet engaged, and "the opening of the womb not larger than a dollar piece, rigid and unyielding." Dr. Bedford now applied the forceps, and with much effort brought the head to the inferior strait with the occiput pressing on the perineum. The delivery was finished by Dr. Mott, after sixty-one hours of violent suffering on the part of the patient, and both mother and child did well. How the forceps were applied, with the head above the superior strait and a rigid os uteri not larger than a dollar, does not appear.

Dr. B. in the same paper records another case operated on by him, in which complete occlusion of the mouth of the womb had followed attempts to produce abortion, by the notorious Madame Restell. In this case, delivery followed in ten minutes after the incision was made, and both mother and child did well.

One of the Vice Presidents of this College, Dr. C. D. Meigs, reports in its Transactions, a case of partial occlusion of the vagina, which has unusual interest, from the fact that he had opportunities for observing the disease which produced the contraction. The patient had extensive ulceration of the os uteri, which healed rapidly under the application of the acid solution of the nitrate of mercury. As the ulcer healed, a very considerable contraction of the upper portion of the vagina took place, by which its cavity was reduced in diameter to that of an ordinary silver pencil; pregnancy follow-

ed, and at the end of about seven months, labour pains came on. The stricture now admitted the index finger with great difficulty; means were used to keep off labour, but in about ten days the pains returned with great severity; various means calculated to produce a relaxation of the vagina were skilfully resorted to; amongst them, the strictured portion of the vagina was freely anointed with an ointment containing extract of belladonna. Dilatation was at length effected by the advancing head, and the child was born without instrumental assistance.

Spontaneous Evolution.—The late Dr. N. W. Cole of Burlington, N. J., recorded a case of spontaneous evolution, in the New Jersey Medical Reporter, for July, 1848. This was a case of twins; one had been expelled, and the shoulder and right arm of the other were protruding, and the uterus firmly contracted around it. The child being dead, the Dr. was preparing his instruments for taking it away, when the pain, which had ceased, returned, and under their unaided influences the shoulder ascended, the feet and breech came down, and the head followed. The report states that the child was healthy, and of the average size, by which we presume is meant, that it was healthy previous to delivery, for it has before pronounced it dead.

A case of spontaneous evolution, is given by Dr. Edwards in the Lancet for January, 1848. While they were preparing to use the perforator the woman passed a large quantity of fœces, when the arm disappeared and the breech presented. Another, by Dr. Copeman, in No. 5 of the British Record. Here the back presented; while preparing to turn, the head and shoulder were forced down, and the occiput presented. Another, in which the arm presented, is reported by Dr. Jones, in the Lancet for January 29th, 1848; and three others are alluded to by Dr. Ranking in his report for the first six months of the last year.

Turning.—Dr. Simpson, of Edinburgh, in a series of papers published in the Provincial Medical and Surgical Journal, goes into an elaborate illustration of his views on the subject of "*Turning as an alternative for craniotomy and the long-forceps, in deformity of the brim of the Pelvis.*"—He labors to show the mechanical advantages gained, by means of diagrams, and deduces from his arguments the following conclusions:

"1. The fœtal cranium is of a conical form, enlarging from below upwards, and when the child passes as a footling presentation, the lower and the narrower part of the cone-shaped head is generally quite small enough to enter and engage in the contracted pelvic brim.

"2. The hold which we have of the protruded body of the child, after its extremities and trunk are born, gives us the power of em-

ploying so much extractive force and traction at the engaged fœtal head, as to make the elastic sides of the upper and broader portion of the cone (viz. the bi-parietal diameter of the cranium) become compressed, and, if necessary, indented, between the opposite parts of the contracted pelvic brim, to such a degree as to allow the transit of the entire volume of the head.

"3. The head in being dragged downwards into the distorted pelvis, generally arranges itself, or may be artificially adjusted, so that its narrow bi-temporal, instead of its broad bi-parietal diameter, becomes engaged in the most contracted diameter of the pelvic brim.

"4. The arch of the cranium or head is more readily compressed into the flattened form and size requisite for its passage through a contracted brim, by having the compressing power applied as in footling presentations and extraction, directly to its sides or lateral surfaces, than by having it applied as in cephalic presentations, partly to the lateral and partly to the upper surfaces of the arch.

"*Lastly*, I may add as a result of the whole machinery, that the *duration* of the efforts and sufferings of the mother are greatly abridged by turning when used as an alternative for craniotomy and the long forceps, and that thereby her chances of recovery and safety are increased."

To this last conclusion the Professor attaches great importance, and labours to show

"1. That, as a general law, the amount and proportion of maternal and infantile deaths accompanying parturition, are regulated and modified by the length and duration of labour.

"2. That the liability to various morbid obstructive complications during and after delivery, is modified and regulated by the same law; and

"3. That the mortality attendant upon obstetric operations, such as the use of the forceps and the crochet, is also strictly modified and regulated by it;—operative delivery being more and more fatal in proportion to the lateness in the course of the labour at which it is adopted; and, on the other hand, less and less fatal in proportion to the earliness in the course of the labour at which it is practised."

It will, perhaps, be generally admitted, that the fœtal head will pass more readily through a contracted pelvis when it presents as in footling cases; and that when it is practicable, it is better for the mother with a contracted pelvis, that turning should be resorted to early, than that the head should be allowed to press upon the brim of the pelvis, until the child is ascertained to be dead. But in the opinion of your reporter, there are difficulties in regard to the practice suggested, which the Professor does not state.

The life of the child is certainly of most serious consequence in all cases; and if this is endangered in a common footling presenta-

tion, how much must this danger be increased when the head is necessarily arrested at the pelvic brim, so as to require the compression contemplated, with the additional risks arising from traction on the neck? And as has been suggested by Dr. Radford; what means have we of ascertaining the diameter of the pelvis, with sufficient accuracy for us to determine whether the head can be made to pass after we have turned? or, whether it would not readily pass if not turned, without risk to the child, by application of the long forceps? *Braithwait's Retrospect, from Prov. Med. and Surg. Journal.*

Dr. Colin in a Memoir read before the French Academy of Medicine, contends:

1. That it is not true that after parturition the muscular textures of the inner surface of the womb are denuded.
2. That a membranous and vascular layer remains even in cases of premature delivery.
3. That layer does not differ from the uterine surface of the decidua.
4. That the vascular remnant not only is not altogether destroyed by suppuration, but becomes the seat of the healing process, by which the uterine mucous membrane is reconstructed; which takes place between the twentieth and thirtieth day after parturition, and which is completed only after the termination of the second month following delivery. *American Journal of Medical Sciences, from Medical Times, September* 9, 1848.

Professor Simpson, at a meeting of the Edinburgh Obstetrical Society, in the early part of the present year, "stated that the general law which regulated the occurrence of labour, in relation to the death of the fœtus was well known to be this, first, that usually, in from one to three weeks after the fœtus died, uterine contractions supervened and effected its expulsion. But to this very general law there were various exceptions. For second, if the embryo died in early embryonic, life and the fœtal appendages continued to live and vegetate, expulsion might not supervene for months. He showed a case of hydatiginous ovum, when the embryo was not larger than an embryo of the sixth week; but the placenta or rather the chorion was the seat of hydatiginous hypertrophy and degeneration; and the mother calculated that she had passed the usual term of utero-gestation, not having menstruated for eleven months previously to the expulsion of this diseased ovum. Third, when the fœtus dies from the third month onward, (in consequence either of disease in its own organization, in its umbilical cord, or its placenta,) and a second twin living fœtus exists at the same time in utero, and this second fœtus continues to grow and keep up a correspondence of development between the organ and its contents, the dead and undeveloped twin may be retained up to the full term of pregnancy,

and be then born along with the other living and full sized child. Fourth, when the dead fœtus is thus retained, it is preserved free from the decomposition usually following death, by all access of air to it being prevented. Sometimes it retains its usually rounded appearance and form, if it continues to be surrounded by a sufficient quantity of liquor amnii; but in other cases, when this protecting medium of liquor amnii is defective, the fœtus becomes gradually more and more squeezed between two forces, viz: the parieties of the uterus on the one side, and the other living twin or its membranes on the opposite side; and at last, when born it is found compressed and *flattened* in form. Two such flattened fœtuses are in the University museum, and many such cases are on record. Fifth, the birth of such undeveloped dead twins had sometimes given rise to most groundless and erroneous ideas of the existence of superfœtation. Sixth, occasionally, when one of the twins died early in pregnancy it was after a time expelled, (when it happened to be situated near or over the os uteri,) afterwards the uterus closed and pregnancy went on to the full term with the remaining living child. He mentioned a case of a lady aborting a fœtus about the third month, going on in pregnancy to the full time, and then being delivered of twins, having originally conceived of triplets. Seventh, this last circumstance evidently led to the practical deduction—that when a dead fœtus in its envelopes was expelled during the currency of pregnancy, and the uterus, notwithstanding, still remained large and apparently distended, its further contents should not be in any way interfered with, but rest and other means employed to arrest the excitement of any additional uterine contraction; under a hope that a living twin might still be retained and be carried onwards to the full term of utero-gestation.—*Monthly Journal of Medical Science, for May*, 1848, *as quoted in American Journal of Medical Sciences for October*, 1848.

Dr. Ranking, in his Report on Midwifery for the first six months of the past year, states, that "several additional cases of so called superfœtation have been recorded. Dr. Horlsbeck mentions one in which two fœtuses were expelled; one of six months, the other clearly not more than of six weeks gestation. In another, by Dr. Windriff, fœtuses, one of seven months, and another apparently under six, were both born alive, the former being well; the placenta and membranes were distinct. The author thinks the case unique, inasmuch as the fœtuses were born alive."—*Journal des Connais. Med. Dec.* 1847. In the same report we find an abstract of a case by Dr. Newsham, from the British Record, No. 8, in which a "woman was prematurely confined of a still born fœtus, and another was distinctly found to be present; the uterine action ceased until the completion of her full time when she was delivered of a full grown, healthy boy. This Dr. Newsham looks upon as a case of true

superfœtation ; and draws from it the obvious inference that in such cases the second fœtus should not be interfered with."

A new plan of *inducing premature labour* has been suggested by Dr. Agostini, of Venice, which consists of making use of repeated vaginal injections of warm water, taking care to throw the stream with some force upon the os uteri. The operation is repeated every six hours, and continued for twelve minutes.—*Ranking's Rep. from Annales de Therapeutique, Mais.* 1848.

The London Lancet, for September 25, 1847, has an account taken from a German Journal, of a method proposed by Dr. Cohen of Hamburg, for inducing premature labor ; it consists in introducing a canula between the uterus and the ovum for about two inches, and then cautiously injecting from an ounce and a half to two ounces of liquid, say tar water, slowly, and withdrawing the syringe by degrees; in ten minutes the woman may walk about; the operation should be repeated in six hours, if her labour does not commence previously.

Dr. Trousseau states in one of his recent clinical lectures, that he has seen great advantage accrue from the mode of treating obstinate and dangerous vomiting during pregnancy, adopted some years since by Bretonneau. "It first occurred to that practitioner owing to the fact of his patient suffering from violent uterine pain, for the relief of which, believing the vomiting to depend upon its presence, he ordered a *belladonna* lotion to be applied to the hypogastric region and with the effect of removing both the pain and the vomiting."—*British and Foreign Medical Chirurgical Review, for April*, 1848, *from Gazette de Hospital*, 1848, *No* 1.

Dr. Emerson, a Fellow of this College, has contributed to the American Journal of Medical Sciences, a paper "*on the causes operative in determining the proportions* of the sexes at birth." Dr. E. draws his data from the vital statistics of Philadelphia, "for the decennial period embracing the years between 1830 and 1840," but especially the time when Asiatic cholera prevailed, and from similar statistics of several European countries ; his inferences are that the proportion of the sexes, is somewhat under human control, it being evident that depressing influences, such as severe and alarming epidemics, mercantile distress, &c., tend to diminish the number of male conceptions, and that the high physical health which accompanies prosperity, increases them. These inferences appear to be ligitimately drawn from the data given.

A successful case of cæsarian operation by John Goodman, Esq., of Manchester, is quoted in Braithwait's Retrospect, from the British Record. The intestines having given way a large surface was left

to heal by granulation, and more than two weeks after the operation, the sore broke open, so that a portion of intestine protruded, which could not be restored; an artificial anus resulted, yet the patient recovered.

Puerperal Convulsions.—Dr. Channing in his work on "Etherization in Childbirth," gives the history of three cases of puerperal convulsions, which were successfully treated by chloroform and ether. The first case occurred in his own practice; the patient aged twenty-one, was in the middle of the sixth month of pregnancy. She had much anasarca with œdematous fullness of face and neck; she had several convulsions for which she was treated homeopathically. After consciousness was abolished homeopathy was abandoned and twenty ounces of blood taken from the arm with some relief. Dr. Channing being called in, he "found her with a pulse of one hundred and twenty, not strong or full. Comatose, incapable of being aroused, skin hot, turged, mottled, mouth open, tongue swollen and protruded between the teeth." A *pain* soon came on and with it a violent spasm. "The spasm was short, but little exceeding a minute, but I think as violent in its whole character as I have ever witnessed." "Heavy, almost suffocating stupor now came on; and, after some time respiration became easier." With the next pain chloroform was exhibited; "no spasm attended or followed," this was 1, P. M.; pains continued but no convulsions, until 4, P. M., when another and light attack occurred; after this the convulsions appeared to be entirely under the control of the remedy. The patient was delivered about 10, A. M., the next day and did well. Dr. C. says, "I passed twenty-four hours with this patient, and had opportunities to observe symptoms and the effects of etherization. Inhalation was used to *prevent* convulsions. It was used for some time at the very beginning of uterine effort, and was continued until it ceased. As intervals grew longer, chloroform was less regularly used; but this was regulated entirely by the character of the pain, its length, &c. The report shows how perfectly the object of etherization was attained, convulsions were prevented, so that, with the exception of one fit, the disease did not declare itself after inhalation was begun." Dr. C. gives the details of two other cases in which chloroform, and another in which ether was used with advantage.

Anæsthesia.—We now reach the subject which for the period our report refers to, has of all others claimed the most interest; we allude to the exhibition of ether and chloroform by inhalation, for the purpose of producing anæsthesia during parturition. On the 19th of the First month, (January,) 1847, Professor Simpson, of Edinburgh, administered ether to a woman in labour, for the purpose of rendering her insensible to pain; it being a case of deformed pelvis, in which the Doctor intended to extract the child by turning;

he regarded it of little importance whether etherization checked the uterine contractions or not; the result showed that while consciousness to pain was destroyed, the muscular contractions of the uterus continued. This case was reported to the Obstetric Society of that place the next day. In the succeeding three weeks, Dr. Simpson exhibited ether in "several cases of natural labour, and in one forceps case," and drew from them the following conclusions, which he laid before the same Society:

1. That the inhalation of ether procured for the patient a more or less perfect immunity from the conscious pain and suffering attendant upon labour.

2. That it did not, however, diminish the strength or regularity of the contractions of the uterus.

3. That, on the other hand, it apparently (more especially when combined with ergot) sometimes increased them in severity and number.

4. That the contraction of the uterus after delivery seemed perfect and healthy when it was administered.

5. That the reflex assistant contractions of the abdominal muscles, &c., were apparently more easily called into action by artificial irritation and pressure on the vagina, &c., when the patient was in an etherized state.

6. That its employment might not only save the mother from more pain in the last stages of labour, but might probably save her also, in some degree, from the occurrence and consequences of the nervous shock attendant upon delivery, and thereby reduce the danger and fatality of childbed; and

7. Its exhibition did not seem to be injurious to the child.

A few weeks subsequently he reported further, that the fœtal heart was but little, if at all, influenced by full and prolonged etherization, either during pregnancy or labour; and that the mother during labour might be kept etherized, if required, for one, two, three, or more hours; he having given it in one case about six, and in another, four hours before delivery. Under very deep etherization, the uterine contractions were somewhat modified, but recurred immediately in full force as the effect passed off. Dr. Simpson had hitherto seen no traceable injury to mother or child. Immediately after the publication of these results by Prof. Simpson, the subject was investigated by various observers throughout Great Britain and on the continent; amongst the most distinguished of these were Dr. Murphy, Professor of Midwifery in the University College, London, Dr. Prothero Smith, Baron Dubois, of Paris, Professor Villeneuve of Marseilles, Stoltz, of Strasburg, Martin, of Jena, Siebold, of Göttingen, and Grenser, of Leipsic.

In a paper read before the Haverian Society, London, February 5th, 1848, Professor Murphy gives the details of seven cases in

which he exhibits chloroform, and draws from them the following conclusions:

1. It does not interfere with the action of the uterus, unless it be given in very large doses, which is never necessary.

2. It causes a greater relaxation in the passages and perineum; the mucous secretion from the vagina is also increased.

3. It subdues the nervous irritation caused by severe pain, and restores nervous energy.

4. It secures the patient perfect repose for some hours after her delivery. These three last effects consequently render an operation much easier to perform, and the recovery of the patient afterwards much more probable.

5. The order of its effects on the vital functions seems to be—loss of sensation, partial loss of voluntary motion, loss of consciousness, complete loss of voluntary motion, sterterous respiration, loss of involuntary motion, cessation of the action of the uterus, of respiration, of the action of the heart.

6. Its injurious effects, when an ordinary dose is given, seem to depend on constitutional peculiarities, or on improper management. Much excitement about the patient may render her violent; catalepsy has occurred in some, chronic contractions in others. Some patients are slow in recovering from the effects of a large dose; they remain giddy during the day, and sometimes faint when they stand upright.

Professor Dubois's conclusions as officially reported are, that—

1. The inhalation of ether can annul the pain of obstetrical operations.

2. It can suspend the physiological pains of labour.

3. It destroys neither the uterine contraction nor the contraction of the abdominal muscles.

4. It diminishes the natural resistance of the perineum.

5. It does not appear to act unfavorably on the health or life of the infant.

In America, Dr. Channing, of Boston, has bestowed much labour and care on the investigation of this subject. An octavo volume of four hundred pages, published the latter part of the past year, is the result of his assiduity. This work presents the subject to the profession in a manner calculated to claim attention. The cases referred to by Dr. Channing, in which ether or chloroform were used, amount to five hundred and seventy-four. They occurred in his own practice, and in that of upwards of forty other respectable practitioners, many of them of high standing.

Dr. C. says, "in five hundred and sixteen cases of labour, embracing among them all the circumstances belonging to this process, except instrumental or manual aid; in all these cases of labour, accomplished during etherization, we have not a case in which the mother did not do well; cases of still birth are referred to, but

these, as we have seen, had no connection with etherization." "My confidence in the remedy of pain in this class of labour, (natural) increases daily. The confidence the public have in its invaluable agency also increases; and, reasoning from direct observation of its effects, is there any place for doubt of its ultimate and universal employment." Dr. C. further says, "very little is offered in this volume of the comparative statistics of midwifery practice, with and without etherization, it seemed hardly necessary to do this; for I have not reported a case, (and I have reported all which I have been able to obtain,) of untoward result to either mother or child, which by any just reasoning can be ascribed to etherization."

Other observers in various parts of our country, have confirmed these views and results.

Amongst the numerous correspondents, whose authority is quoted by Dr. Channing, we find that of Professor John Ware, of Boston, who has given ether in two cases of obstetrics, and is favorable to the inhalation of both ether and chloroform: of Professor Bigelow, of Boston, who had exhibited ether in eight cases and chloroform in two; and is favorable to both: of Dr. Pierson, of Salem, Mass., who has given ether in three cases; opinion favorable: of Dr. Putnam, of Boston, who reports seventeen cases of ether, seven of chloroform; opinion favorable: of Dr. Storer, who reports thirty-eight cases of ether, two of chloroform; opinion favorable: of Dr. Bartlett, of New Bedford; has used ether in two cases; is favorable to its use in certain cases, but not in all: of Dr. Jarvis, of Dorchester; has used ether in five cases; opinion favorable: of Professor Roby, of Baltimore; has used chloroform in one case; opinion favorble: of Dr. A. K. Goodwin, of New York; has used chloroform in three cases; opinion favorable; and of Dr. Bartlett, of Concord, Mass., who has used ether in eight cases; but gives no decision.

Dr. Burwell, of Buffalo, gives, *in the Buffalo Med. Jour.*, a statement of fifteen cases of midwifery in which chloroform was administered; he divides them into two classes: 1st, those in which anæthesia was complete or nearly so. 2d, those in which complete consciousness was retained of surrounding circumstances, or only momentarily lost. Eight cases came under the first division. The second class of cases demonstrate, in Dr. Burwell's opinion, the possibility of so exhibiting chloroform that consciousness is retained for surrounding circumstances, and yet the suffering so diminished as to be of little importance; this effect has been noticed by Dr. Channing and others, and was fully exemplified in one of the cases in which ether was exhibited by your reporter.

Professor Lindsly, of Washington, D. C., says, "that sufficient evidence has now been advanced in favor of etherization in midwifery practice; it having been employed in probably two thousand cases, without a single fatal result; to render it the duty of the profession to give it further trial; to experiment with it cautiously

and judiciously, in order to see if we cannot finally arrive at general laws and principles which will enable us to administer it without danger or apprehension." Dr. Clark, of this county, has published in the Medical Examiner several cases, in which ether was exhibited with favorable results, and which have already been reported to this College.

Besides these, we are not aware that any cases have been published by residents of this city and its vicinity. But we understand from our friends, that several of them have given the practice a partial trial, without any untoward effects having resulted. Your reporter has used it in but two cases, one a forceps case, and the other of natural labour. In both, strong expressions of satisfaction and gratitude were used by the patients at the time and afterwards, and their recovery was rapid and uninterrupted; in the forceps case the increased secretion of vaginal mucous after the induction of anæsthesia was very striking.

Nearly two years have now elapsed since the practice was introduced by Professor Simpson; it has been tested by careful and competent observers in Europe and America; and most, if not all, who have published the results of their observations on this subject, agree that the suffering of labour can be greatly ameliorated or entirely abolished by the inhalation of either, sulphuric ether, or chloroform; that the expulsive efforts of the uterus are not interfered with to any considerable extent; that the general condition of the system for safe and rapid delivery is improved; that the exhaustion which usually follows labour is diminished; and that no serious disadvantage has hitherto resulted to mother or child. On the other hand, it has been clearly shown by the experiments of Wakley and others, that both ether and chloroform, if improperly or excessively exhibited, are highly dangerous, and hence it becomes a question whether the immunity from danger which has hitherto attended the exhibition of these agents in midwifery is the result of an adherence to certain fixed principles or is accidental? This, it appears to your reporter, is the only question of importance in regard to it, which remains to be settled, and he has no hesitation in asserting, that if extended experience settles it in favor of the safety of the use of either agent an inestimable boon will have accrued to mankind; not that it would be proper, even then, to resort to it in all cases, but if the practitioner can feel *himself at liberty to resort* to it without apprehension of danger should the pangs of childbirth become intolerable, a vast amount of mental disquietude as well as physical agony will be saved to those females who place themselves under his care.

Dr. Gibbons remarked, that a case of supposed hydrophobia occurring in a lady residing in Camden, N. J., and reported to have been cured by the use of chloroform, under the care of Professor Jackson, had been the subject of discussion at a recent meeting of the College;—as that gentleman was now present it would be interesting to the Fellows to hear from him an account of the case; which in every point of view must be considered as a most important one.

Professor Jackson replied, that it was his intention to present at an early period a history of the case referred to. He had always considered true rabies canina as an incurable disease, and he is not prepared to assert, positively, that the case in question was one of genuine rabies; there were many important features of that disease absent, and there is even no certainty that the dog, by whom the patient was bitten, was mad. The lady had suffered, previously to her late attack, from severe nervous paroxysms, but one of these, however, had occurred since her marriage, seven years ago, and this took place four years since. He would describe the patient as physically but not mentally nervous. He would not enter now into further details, but when he presented to the College the history of the case, he would submit the reasons which incline him to believe it to have been one of rabies.

Dr. Bond related the particulars of an extraordinary nervous disease occurring in a female, which has been under his observation for the last eight years. The patient is unable to turn in bed herself, or to be turned by another, without an attack of convulsions being induced. These attacks are also produced by pressure upon the spine, even by drawing her clothes too tightly around her. About one year ago she was seized with a severe convulsive paroxysm, attended with intense pain, in consequence of which she had not slept for two nights. Dr. B. being sent for directed her to inhale thirty drops of chloroform, which produced very prompt relief; the inhalation was then repeated with forty drops of the chloroform, when the patient became perfectly calm, her pulse being regular; and she remained so for about an hour. That night she passed with what in her case might be termed very great comfort. Since that period the patient has used the chloroform daily; at first twice, and now three times in the twenty-four hours. She is still liable to convulsions when her position is changed, or pressure is made along the spine; even when under the influence of the chloroform unless this is given in pretty strong doses. From her being forced to lie constantly upon one side, extensive excoriation of the hip has been produced. The use of the remedy is followed by some distress about the head, which continues for about one and a half or two hours; no other inconvenience has resulted from it. She now takes two ounces of the chloroform in three weeks.

Dr. Jackson, who saw this case, remarked, that he never witnessed more perfect tranquillity in any one, than was evinced by the patient whilst under the influence of the chloroform. When not under its influence she could not be moved, or changed, nor use the bed-pan without a paroxysm of convulsions being produced. Although the remedy exhibited no power to remove the cause upon which the convulsive paroxysms depend, still by suspending these while the patient is moved it affords to her an amount of comfort which no other agent seems adapted to give.

Professor Jackson referred to the history of a case remarkable for the quantity of chloroform that was used. A lady laboring under a stricture of the upper portion of the rectum which prevented the flatus from passing, became, in consequence, the subject of an enormous distension of the abdomen, attended with so great a degree of sensitiveness that the use of palpation and percussion were entirely precluded, and her case was at first involved in no little obscurity.

In the latter part of the month of December, 1845, she was attacked by a violent convulsive paroxysm, preceded by a very peculiar spasmodic affection, consisting in a cracking of the head of the humerus in the glenoid cavity and of the femur in the acetabulum; these spasmodic symptoms continued for about fifteen minutes, when general convulsions set in, accompanied with intense pain. On the first of January, 1846, an attack of spasms occurred and continued for several hours; the urine was retained from a spasmodic affection of the neck of the bladder and urethra, the orifice of which latter was so much retracted that it was difficult to introduce a catheter to relieve the distension of the bladder. A few drops of chloroform were given to the patient to inhale, and prompt relief was experienced. The use of the chloroform was continued daily for two or three weeks, the quantity being gradually increased as the effects diminished. Dr. J. was sent for one morning and found the mother of the lady in great alarm in consequence of the quantity of the chloroform which her daughter had taken. She had inhaled two ounces in the course of the evening, then two ounces more, and an additional ounce in the course of the night; being five ounces inhaled from 5 o'clock, P. M. until 10 o'clock of the ensuing morning. Dr. J. found her with a feeble pulse, diminished temperature of the body, and considerable excitement of mind. She insisted upon having more of the ether to inhale. She remained cold and nearly pulseless for forty-eight hours; when all the effects of the inhalation disappeared, and, what is remarkable, since that time she has had no return of her spasms. Upon one occasion having a tooth taken out, the pain of the operation caused a tendency to their return, but this went off without the spasms occurring.

Dr. Bond related a case of trismus nascentium which occurred in the infant of a female who had been delivered after an easy labor without any medical attendant. When Dr. B. was called to the infant, it was a week old, and exhibited the symptoms of trismus well marked. He administered a mixture of chloroform and assafœtida internally, and the child recovered. How far this result was to be attributed to the chloroform, Dr. B. is not prepared to say, inasmuch as other remedies were employed at the same time. The bowels of the infant were much disordered and so soon as they were restored by an appropriate treatment to a healthy condition, the trismus began to disappear.

Dr. Hays stated, that he had employed the chloroform to produce local anæsthesia with apparently the most happy effects, in a case of neuralgia, occurring in a gentleman fifty years of age, who had been for a long time a sufferer from neuralgia of the foot, in which all the remedies that had been previously employed failed to produce relief. Dr. H. was called to this patient about eight days since and found him in intense pain, which had deprived him of sleep the whole of the preceding night. Dr. H. directed the affected parts to be enveloped with a pledgit of lint or a few folds of muslin wet with chloroform, and the whole to be covered with a portion of oiled silk to prevent evaporation; on the next morning he found him entirely free from pain, which has not since returned. Whether the relief experienced in this case is to be ascribed to the local anæsthesia produced by the chloroform, or is to be considered as a mere coincidence, Dr. H. does not pretend to decide.

Dr. Parrish stated that a case of labour in which chloroform was used, had been communicated to him by his brother, Dr. Joseph Parrish, of Burlington, N. J. He was called a few days since to attend a case of protracted labour from rigidity of the os uteri, attended with severe ineffectual pains; he employed a mixture of ether and chloroform; almost immediately the parts became relaxed, and the labor proceeded with increased activity. The child was soon born and without any consciousness on the part of the mother.

Dr. Griscom remarked, that he had employed ether inhalation, as remarked in the report read by him this evening, in two cases of labour. The first was a protracted, instrumental, case; the female had been in labour twenty-four hours. There was great rigidity of the parts and dryness of the vagina. The patient was very intolerant of pain. As soon as she commenced inhaling the ether she pronounced herself as in heaven. There quickly took place a copious secretion of the vaginal mucous, and the child was soon delivered. The other case was one of natural labor, but attended with

severe pains. The ether was administered at the patient's desire. She did not inhale a sufficient quantity to produce unconsciousness, but acknowledged very decided relief from its use.

Dr. Hays called the attention of the Fellows to the very excellent paper of Dr. Burwell, on the use of anæsthetic agents in labour, which appeared in a late number of the Buffalo Journal. The authority of this gentleman, he remarked, was very high and his statements may be fully relied on. In some of the fifteen cases related by him, a state of unconsciousness was produced, while in others the consciousness of the patient was unimpaired, and yet the mitigation of the sufferings incident upon the labour was very decided. Dr. B. directs a plan for the administration of the anæsthetic agents, by which their effects may be graduated so as to obtain a mitigation of pain without inducing a state of unconsciousness.

Dr. Page believed that there was great uncertainty as to the quantity of the ether or chloroform inhaled in any given case, and an impossibility of graduating the dose. A considerable portion of the ether escapes and becomes mixed with the air of the room; to such an extent sometimes as to affect those who breath it; much also remains in the sponge which can never be entirely exhausted of the ether placed upon it. He has seen the mixture of ether and chloroform given in a case of labor attended with great rigidity of the parts, and severe pain, with the almost immediate effect of increasing the vaginal secretion, and relaxing the os uteri; allowing labour to go on while it caused a cessation of the pain. It is known that the inhalation of ether and chloroform increases the secretion from all the mucous surfaces; causing an increased discharge of saliva, of the mucus of the Schneiderian membrane, of the bronchial mucus, &c.; in consequence of which latter circumstance, its use is precluded in many operations in which sneezing or coughing would be highly embarrassing,

Dr. Stille stated, that last spring, Dr. Bowditch, of Boston, related to him a case of nephritic cholic, occurring in an individual who had previously suffered from several attacks, in which the chloroform had been administered with the effect of inducing entire relief of the pain, without abolishing consciousness. The influence of the chloroform was kept up for several hours, when, at length, the stone passed through the ureter. Within the last three weeks a lady, about twenty years of age, after retiring to bed some hours, was attacked with violent pain in the region of the right kidney. About an hour afterwards (1 o'clock A. M.) Dr. Stillé was sent for. The mother had applied warm fomentations to the loins, and immersed the feet in a mustard bath. There was still intense pain, with tenderness over the region of the right kidney. The patient was

lying bent double, her hands and feet were cold, her pulse feeble, and about sixty in the minute. The pain extended in the direction of the ureter; there was pain and a twitching motion of the right thigh, with frequent inclinations to urinate. From a review of the symptoms, Dr. S. considered the case to be one of nephritic cholic. The use of ether was suggested. A tea-spoonful was poured upon a handkerchief and inhaled for five minutes, when the patient fell asleep. In about fifteen minutes she was aroused by a return of the pain. The ether was again inhaled, and its impression was kept up for about an hour, without carrying it so far as to abolish consciousness; the pain ceased, the extremities became warm, and the pulse rose to seventy-five. The next morning there was no pain complained of, but considerable soreness was experienced when pressure was made over the right kidney. The pain did not return until two nights afterwards; when a larger dose of the ether was used, by the patient, without Dr. Stillé's presence or direction, but from some cause, it did not produce the same alleviation of the pain as before. At 4 o'clock in the morning Dr. S. saw her. The pain had by this time somewhat abated, and upon the administration of an opiate enema complete relief was procured. The pain has not since returned. No calculus was passed, so far at least, as could be ascertained.

Dr. Gibbons believed that we had overlooked the very great analogy there was between the effects of ether inhalations and opium. They both cause a cessation of pain without diminishing the expulsive action of the uterus, and this without necessarily inducing an abolition of consciousness. In abortions, when opium is exhibited, the fœtus is expelled without the patient experiencing a sensation of pain. From the favorable effects of opium in labors at the full term, he would infer the good effects of ether and chloroform. Given after delivery, the effects of opium is to render the recovery more favorable. To a combination of opium and camphor given at the termination of labours, he would almost ascribe the power of preventing the occurrence of puerperal fever. He has certainly never seen that disease occur in cases where he has given the combination referred to in a full dose.

Dr. Jackson dissented from the suggestion of Dr. Gibbons, that large doses of opium and camphor are useful either during or after an ordinary case of labour. If the system of the parturient female is brought fully under the influence of opium, there would unquestionably be some danger that the speedy and complete contraction of the uterus would not take place, and consequently endanger the occurrrence of flooding.

SUMMARY

OF THE

TRANSACTIONS OF THE

COLLEGE OF PHYSICIANS

OF PHILADELPHIA.

FROM FEBRUARY 6, 1849, TO APRIL 3, 1849, INCLUSIVE.

Stated Meeting, February 6th, 1849.

Dr. WOOD, President, in the chair.

Present, twenty-four members.

The Committee of Publication reported that they had issued the Sixth Number, Volume II, of the Summary of Transactions.

Dr. CASPAR MORRIS presented to the Library a work entitled Quanooncheh, or a Treatise on the Theory and practice of Medicine, in Arabic, by Ahmud-bin-Muhmood Chughmeenee; with a commentary in Persian, and Notes in English, by Ubd-col-mujeedate, Professor and Physician in the Arabic Mudrasch of the Hon East India Company in Calcutta.—Calcutta, 1847.

Dr. GIBBONS presented and read the following

REPORT ON METEOROLOGY AND EPIDEMICS FOR 1848.

The Doctor remarked, that the present Report had been prepared by Dr. J. WILSON MOORE, who subsequent to the death of Dr. Hewson, had continued to make the requisite observations.

In presenting this Report, your Committee have, in addition to their usual meteorological table, marked A, prepared one, marked B, embracing the mean temperature of each month, and also the mean of each year for thirteen years, from 1836 to 1848 inclusive. Corresponding with this table are thirteen other tables, marked C, D, E, &c., containing the monthly record of deaths, arranged under specific heads, according to the parts affected, and exhibiting the total of each class. This has been done with a view, among other things, of comparing the influence which seasons and changes of temperature have on the production of diseases.

The long established opinion that the seasons have their peculiar diseases, is in some degree sustained by this report; but to what extent the various changes from heat to cold, drought to moisture, abundant harvest to arid pastures, and the reverse, affect general disease, does not appear to be as clearly established. Your committee has seen the same state of health existing in various conditions of weather, at the same season of the year, leading to the conclusion, that the causes of disease are dependent on some other influences than those which our present meteorological knowledge have developed.

For the statement of the Dew point, and measurement of Rain, melted snow and hail, we are indebted, this year, to the tables kept at the Pennsylvania Hospital, by John Conrad, apothecary. The other observations were duly recorded by your committee, and taken from well tested instruments in their own possession.

The number of Deaths this year from all diseases and casualties, amounts to seven thousand seven hundred and twenty-seven, 7,727, and the number of inhabitants within the limits of this report, is estimated at about three hundred thousand, 300,000, making nearly one death to every thirty-nine inhabitants, or a mortality, from all sources of 2.58 per cent. in the course of the year.

State of the Weather.

The *First Month*, January,—Was changeable, the thermometer varying from 11° to 58°. On the first of the month there was a very dense fog; and a mild atmosphere continued for five days; this was succeeded by a spell of cold, during which the thermometer fell to 11°, making a change in 24 hours of 29°. For fourteen mornings the temperature varied from 11° to 32°, and its maximum during the month, at that period of the day, did not exceed 54°, with a mean of 37⅔°. There were but five days when the mercury did not rise above 32° at 2 o'clock, and it varied during the month from 26° to 58°, the mean being 41°. At 10 o'clock, P. M., the mercury was below the freezing point at nine observations, and it varied during the month from 16° to 56°, the mean being 36⅔°.

The warmest day in the month was the 1st, its mean being 54½.

The coldest was the 10th, its mean being 17½. The extremes were 11° and 58°.

The greatest diurnal variation was on the 9th, being 24°, and the range in the month was 47°. The mean temperature of the month was 38⅓°. A comparison of this with the same month for thirteen years, will be found in the table marked B. The barometer ranged from 29.58 to 30.65. The dew point, taken at 9 o'clock, A. M., was 26. The wind prevailed, twenty-two observations, from N. E. to E.; nine, S. E. and S.; nineteen, S. W. and W.; and twelve, N. W. and N. There were 5 clear, 7 cloudy, and 19 variable days. Rain fell on 9 days, snow on 1, and hail on 2, making a total of 2.30 inches of water. The bills of mortality for the month, including 4 weeks or 28 days, recorded 536 deaths from all diseases and casualties; of these there were 222 not exceeding 5 years of age, and 24 from casualties, old age, poisoning, &c.

The *Second Month*, February. The mercury on 19 mornings ranged from 19° to 32°. It continued to freeze all day on five days, and on no morning during the month was the thermometer above 44°. At noon it ranged from 24° to 52°, and at night from 22° to 46°. The warmest day was the 21st, its mean being 47°. The coldest was the 11th, its mean being 22°. The greatest diurnal variation was 15°, on the 3rd. The extremes in the month were 19° and 52°. The mean temperature in the morning was 31⅓°; at noon, 38¾°, and at night, 34°; and for the whole month, 34¼°. The barometer ranged from 29.28 to 30.36, making 1.09 inch variation. The dew point at 9 A. M. was 18.86. At fourteen observations the wind was N. E. and E.; three, S. E. and S.; twenty-seven, S. W. and W., and fourteen, N. W. and N. There were 7 clear days, 3 cloudy, and 19 variable. Rain fell on 4 days, snow on 3, and hail on 1. When collected, the rain, and melted snow and ice measured 1.443 inches. The reports of the Board of Health, embracing 4 weeks or 28 days, terminating on the 25th inclusive, gave 536 deaths, of which 234 were under five years of age, and 16 from casualties, old age, suicides, &c.

The *Third Month*, March, varied in temperature from 14° to 73°. On the 2d, four inches of snow fell, which was the greatest quantity at any one time this winter. During the first six days, the mercury varied from 23° to 38°. The succeeding seven were milder, being from 31° to 55°. Rain fell on part of two days. From the 14th to the 17th inclusive, were the four coldest consecutive days this winter, during which the thermometer ranged from 14° to 35°; they were preceded by a slight sprinkle of snow. The remainder of the month was mild, being from 34° to 73°. The range in the morning was from 14° to 32°, at noon from 20° to 73°, and in the evening from 16° to 62°. The morning mean was 35°, noon 45½°, night, 39°; and that for the whole month was about 40°. The warmest day was the 31st, its mean was 61⅓°. The coldest was

on the 15th, and the mean 16⅔°. The greatest diurnal variation was 23°, on the 31st, and the greatest in the month 59°. The range of the barometer was from 30.43 to 29.70 inches. The mean dew point, at 9 o'clock, A. M., was 25.25. The wind at fifteen observations, was N. E. and E.; fourteen, S. E. and S.; nineteen, S. W. and W.; and fourteen, N. W. and N. There were 4 clear, 8 cloudy, and 19 variable days. It rained on 8 days, and snowed on 3. The melted snow and rain measured 2.756 inches. The month was reputed sickly, carrying off, according to the reports of the Board of Health in 5 weeks or 35 days, terminating on the 31st, 727 persons of all ages; of which 311 were under five years of age, and 32 from casualties, old age, &c.

The *Fourth Month*, April, with the exception of a few days, was a pleasant month. The fore part was dry, and vegetation sprang forth rapidly. On the 7th, a splendid aurora was seen at midnight, shooting forth brilliant corruscations to the zenith. On the 13th, a shower of rain occurred, attended with lightning and thunder, and a little hail fell at the same time, during which the barometer fell the 10th of an inch. On the 19th, the mercury in the thermometer sunk, in the middle of the day, to 38°; it was cold and raw, hail, snow and rain fell in considerable quantity; yet the fruit trees that were in blossom sustained little or no injury.

The thermometer, in the morning, ranged from 36° to 63°, at noon from 38° to 76°, and in the evening, from 46° to 62°. The means at these times were 48⅓°, 61⅔°, 52⅓°, and for the month, 54⅓°.

The warmest day was the 29th, its mean being 64°; the coolest was on the 19th; its mean was 40°. The greatest diurnal variation was 26° on the 21st, in the whole month, 40°, from 36° to 76°.

The barometer ranged from 30.55 to 29.60 inches. The mean dew point, at 9 o'clock, was 33.73 inches. The wind was 15 times N. E. and E.; 12, S. E. and S.; 18, S. W. and W., and 17, N. W. and N. There were 5 clear, 8 cloudy, and 17 variable days. It rained on 8 days, snowed on 2, hailed on 2, making altogether, when the snow and ice were dissolved, 1.541 inches. The number of deaths reported this month, including 4 weeks, from the 2d to the 29th inclusive, were 603, of which 298 were not over 5 years of age, and 22 from casualties, &c.

The *Fifth Month*, May, was pleasant, attended with frequent showers, affording to vegetation a luxuriant growth. The prospect for fruit of every kind was good, notwithstanding the frost and storms on the 13th and 19th of last month, which at the time were thought destructive to most fruit trees then in blossom. The highest temperature observed in the morning was 70°, and the lowest 49°. At noon the extremes were 86 and 57° and at night 74 and 52°. The means were 60⅓°, 74° and 64°, whilst that for the entire month did not exceed 66°. The warmest day was the 21st, and its mean 76⅓. The coldest was on the 1st, and its mean was 52⅓°. The greatest

diurnal variation was 23°, on the 16th and 18th. That in the month 37°, from 49 to 84°. The barometer ranged from 30.15 to 29.56. The dew point was 53.84. The winds were at twenty-four observations N. E. and E.; fourteen, S. E. and S.; twenty-two, S. W. and W.; and twelve, N. W. and N. There were four clear days, three cloudy, and twenty-four variable. Rain fell on ten days, and measured 4.902 inches. The deaths this month, embracing a period of five weeks, were 708; of these 320 were children, and 30 were from casualties, old age, &c.

The *Sixth Month*, June, was the warmest with one exception, for 13 years past, the period of our observations. There were a number of seasonable showers, and the atmosphere was cleared by several gusts, attended with sharp lightning, and heavy thunder. The fruits of the season were fine, vegetation of every kind exuberant, and the hay and wheat harvest promised abundance. The maximum temperature this month, was 95°, on the 16th, and the minimum 54°, on the 1st. In the morning of the day the maximum was 78, the minimum 54, and the mean 67°. At noon the extremes were 95 and 62°, and the mean 81°. At night they were 84 and 55, and the mean 72°. The mean of the whole month was 73⅓. The greatest diurnal variation was 23°, on the 3d, and the greatest during the whole month was 41°. The barometer ranged from 30.05 to 29.70. The dew point afforded a mean of 58.00. The winds were observed three times N. E. and E.; five, S. E. and S.; thirty-nine, S. W. and W.; and thirteen, N. W. and N. There were six clear, two cloudy, and twenty-two variable days. Rain fell on nine days, measuring 4.433 inches. On the 19th, the greatest quantity fell at any one time, measuring 2½ inches; and it is stated that in some sections, within twenty miles of the city, it measured 8 inches. The deaths during the month, embracing four weeks, were 810, of which, 496 were children not over five years, and 29 were from casualties, old age, suicides, &c.

The *Seventh Month*, July, was quite seasonable. A few sultry days were succeeded by refreshing showers of rain, which cooled the atmosphere, and rendered the weather agreeable. On the 13th, there was a hard rain, attended with thunder and sharp lightning. In the morning the thermometer indicated a variation from 79 to 60°, with a mean of 70°. At noon the changes were from 92 to 71, and the mean 80⅔°. At night from 82 to 62, and the mean indicated was 72½.° The mean of the whole month, was 74⅕.° The warmest day in the month was the 27th, and its mean was 84⅓°. The coldest was on the 8th, and its mean 64°. The greatest diurnal variation was 19°, on the 18th; the greatest during the month was 32, which occurred between the morning of the 17th and noon of the 27th. The extremes of the barometer were 30.14 and 29.47. The mean dew point was 67.05. There were four clear days, five cloudy, and twenty-two variable. The winds for seventeen observations

were N. E. and E.; fifteen, S. E. and S.; twenty-three, S. W. and W., and seven, N. W. and N. Rain fell on nine days, hail on two, and snow on one, making a total of 2.30 inches of water. The deaths during this month amounted to 808, from all diseases and casualties; of these 499 were children of five years old and younger, and 34 from casualties, old age, &c.

The *Eighth Month*, August, was a dry, warm month. In the morning the variation was from 76° to 62, at noon from 86 to 72, and at 10 o'clock, night, 78 to 66°; the mean of each being 69⅕, 80⅕ and 76°; whilst that given for the whole month was 75⅕. The 16th and 17th were the warmest days in the month, the mean temperature being 79°. The coldest day was the 26th, its mean being 67⅕. The greatest diurnal variation was 18, on the 7th, and in the whole month 24° from 62 to 86. The extremes of the barometer were 30.20 and 29.80. The mean dew point was 62.04. The winds were observed twenty-nine times from N. E. and E.; eleven, S. E. and S.; ten, S. W. and W., and twelve, N. W. and N. There were three clear, three cloudy, and twenty-five variable days. Rain fell on seven days, mostly in slight showers, measuring 1.714 inches. The greatest fall at any one time was ½ an inch, on the 11th. The mortality this month, including five weeks, amounted to 830, of which 467 were not over five years of age, and 37 from casualties, &c.

The *Ninth Month*, September.—The first twelve days were mild; the remainder of the month, with an occasional intermission, was cool. On the 13th the mercury was 55 in the morning, being 21° lower than the previous day at noon; fires were generally resorted to, and retained, with little exception, during the remainder of the month. White frost was observed several mornings, and on the 23d it was stated that ice had been seen one-eighth of an inch thick. Vegetation suffered considerably from the drought, there being very little rain either this or the preceding month. The corn-fields in many places were almost destroyed, and in others fell short of an average crop in Philadelphia county. The pastures were also burnt up, so that cattle had to be stocked long before the usual period. The thermometer ranged in the morning from 70 to 44°, and its mean was 59½. At noon it varied from 86 to 56°, and its mean 72⅕. At night it was 79 to 50, and its mean was 63⅔°. The mean for the whole month was 65°. The greatest diurnal variation took place on the 11th, and was 20°, being a variation from 84 to 64°. The greatest in the month was 42°. The barometer varied from 30.25 to 29.60, making .65 inch. The dew point this month was 49.13. The winds were at four observations, N. E. and E.; eleven, S. E. and S.; twenty-seven, S. W. and W., and eighteen, N. W. and N. There were nine clear and 21 variable days in the month. Rain fell on parts of five days, measuring 1.805 inch. The greatest fall at any one time was 8-10ths of an inch, on the 17th. The mortality

of this month, including four weeks, was 539, of which 239 did not exceed five years of age, and 24 from casualties, old age, &c.

The *Tenth Month*, October. This was a delightful fall month. The thermometer ranged from 42° to 76°. On the 2d a storm of rain and wind occurred, and on the 17th another sudden gust, with lightning and rain, came from the S. W. The range of temperature in the morning was from 70° to 42°. At noon it was from 76° to 52°, and at night it was from 70° to 50°. The mean temperature of the month was 57⅓°. The greatest diurnal variation was 18°, on the 15th; and the range for the whole month was 34°, occurring between the 1st and 22d of the month. The warmest day in the month was on the 1st, its mean being 72°. The coldest was on the 22d, its mean being 46⅔. The barometer varied from 30.31 to 29.58, making .73 inch variation. The dew point at 9 A. M. ranged at 46.61. The winds were during thirteen observations N. E. and E.; eight, S. E. and S.; twenty-nine, S. W. and W.; twelve, N. W. and N. There were five clear, five cloudy, and twenty-one variable days. Rain fell on eight days, measuring 3.745 inches. The greatest quantity fell on the 1st, 2d and 3d of the month. The deaths during the month, embracing four weeks, were 479, of which 240 were children not exceeding five years of age, and 32 from casualties, &c.

The *Eleventh Month*, November.—The thermometer ranged this month, in the morning, from 62° to 27°, and the mean at this period of the day was 39⅕. At noon the variation was from 58° to 34°, and the mean was 47°; and at night it ranged from 60° to 31°, and the mean was 41°. The warmest day in the month occurred on the 1st: its mean temperature being 53¾. The coldest took place on the 11th, the mean being 32⅕°. On the 5th, in the morning, the thermometer was 62°, being 4° higher than the warmest meridian observation. The mean temperature of the month was 42¾. The greatest diurnal variation was 17°, which occurred on the 6th. A small sprinkle of snow took place on the 18th, at which time it fell in Buffalo to the depth of two feet. The barometer ranged from 30.30 to 29.50, making a variation of .80 inch. The dew point presented the mean of 29.36. The wind was noticed at ten observations N. E. and E.; nine, S. E. and S.; twenty-eight, S. W. and W., and thirteen, N. W. and N. There were seven clear, five cloudy, and eighteen variable days. Rain fell on six days, and snow on one, when dissolved, the whole measured 2.343 inches. Ice formed several mornings, and at one time it was ⅛ of an inch thick. The bills of mortality this month, including five weeks, record 629 deaths from all diseases, of which 275 were children not over five years of age, and 35 from casualties, old age, &c.

The *Twelfth Month*, December.—The first three weeks were uncommonly mild, ranging from 70° to 37°, and exhibiting a mean seldom met with in this month, being 50½. It rained on the 10th, and in the evening there was vivid lightning. On the 12th, a slight

sprinkle of snow fell, which was followed, next morning, by a depression of the thermometer; after which it became milder, and continued so until the evening of the 21st, when the mercury for the first time this month was as low as 32°. A cold N. E. wind attended with rain, snow and sleet, lowered the mercury to 24° by the 23d, and the succeeding eight days continued cold and wet. Snow fell on three days, computed to the depth of 18 inches; and it rained parts of three days, causing extremely wet streets, until the evening of the 31st, when it became colder, freezing the slush in the streets and pavements, making more dry though dangerous walking. The morning range during the month, was from 56° to 24°; at noon from 70° to 32°, and in the evening, 64° to 26°. The mean in the morning was 41°, at noon, 48°, and in the evening, 43°. The mean for the month 46⅓. The greatest diurnal variation was on the 8th, being 18°, and that of the whole month was 46°. The barometer varied from 30.53 to 29.61. The dew point, taken at 9 o'clock A. M., gave a mean in the month of 36.24. The winds were at twenty-seven observations, N. E. and E.; six, S. E. and S.; twenty-one, S. W. and W., and eight, N. W. and N. There were four clear, ten cloudy, and sixteen variable days, and there was fog on four days. Rain fell on sixteen days, snow on five, and sleet on two, measuring in water 5.007 inches. The mortality this month, embracing four weeks, amounted to 522, of which 205 were children not exceeding five years of age, and 16 casualties, old age, &c.

Prevailing Diseases.—There has been but little during the year to claim our attention as reporters of epidemic diseases.

In the *First month* the respiratory organs suffered most. Typhus and typhoid fevers, as mentioned in our last report, continued their influence through this and the succeeding month; after which their character was not so defined, though many deaths took place from these diseases in every succeeding month in the year.

Scarlet fever also constitutes a considerable item in the Bills of Mortality, measles, chicken-pox, and erysipelas are also noticed; the latter disease was formerly of but rare occurrence, but as our population has increased, and the city become more densely settled, it forms one of the standing diseases. Indeed, the whole class of exanthemata have, of latter years, become more common.

The *Second month* was considered unhealthy, though there was nothing beyond the ordinary diseases of the season that claimed particular attention.

In the *Third month* there was considerable increase of cephalic diseases, as well as of those of the respiratory organs. Measles and erysipelas also prevailed, and one death from small-pox was reported, it being the first since the 9th month of last year.

The tendency to rabies in the canine race, and the occurrence of several cases of hydrophobia in the human subject, within the last

few months, occasioned great alarm in the community, and sanatary measures were resorted to within the city and liberties much to the satisfaction of the citizens. Three cases of death from this dreadful disease, were reported during the month, and two others in the course of the year, one in the 4th and the other in the 9th month.

Our public papers have recorded a number of other cases as having occurred in different sections of the country. One is stated to have taken place in Camden, N. J. under the care of Drs. Mulford and Jackson, which was successfully treated by chloroform inhalations, an account of which will soon be published by Professor Jackson himself.

Another is reported in the 32nd number, new series, of the American Journal of Medical Sciences, by Dr. Henry Hartshorne, in which chloroform inhalations mitigated the violence of the paroxysms, though the patient finally died.

Another is recorded in the 33rd number of the same Journal; as taken from the Records of the Boston Society for Medical Improvement, where chloroform had been administered without any benefit.

In the *Fourth month* several cases of violent inflammation of the tongue and pharynx occurred within our practice, and although not very generally met with, it is nevertheless of sufficient importance to be noticed here. It was attended with fever, enlargement of the tongue, and difficult deglutition. Bleeding, leeching, and the ordinary attention to the skin and bowels, with diluent drinks, and a gargle of the acetate of lead dissolved in rose water, and diluted with flaxseed tea, quickly relieved the more violent symptons, and the patients recovered in a few days.

During the *Fifth month*, the small-pox extended through the city. Notwithstanding the exertions that were made to prevent its introduction by immigrants, a few cases escaped the vigilance of the officers of the Board of Health: on being discovered they were sent to the Hospital appropriated to contagious diseases. Measles and scarlet-fever continued to prevail, consigning many to the tomb, and also erysipelas and puerperal fever. The latter, since 1842, has excited considerable interest in the profession, from the circumstance of its having prevailed to an alarming extent, within the practice of a few obstetricians. Since then it has prevailed much more generally, giving rise to various hypotheses concerning its nature, and the best method of treatment.

There were 156 deaths from scarlet fever, reported by the Board of Health, between the years 1807 and 1830, and during seven years of that period there was no record of its existence. In 1831 it appeared amongst us in the form of an epidemic, and spread alarm and death in very many of the families it visited. So appalling was its character, that the tender sympathies of our nature seemed paralyzed, and it often became difficult to enlist the aid of

friends in relieving families from the fatigue and exhaustion incident to their arduous duties.

The *Sixth*, *Seventh* and *Eighth* months, were marked by the increase of cephalic and abdominal diseases, whilst those of the respiratory organs yielded to the influence of the season. Some cases of bilious and intermittent fever, were also met with towards the latter part of the 8th month. Cholera infantum, so destructive to children in this city, claimed a large share of attention; and diseases of the abdominal viscera constituted about one-third of the whole bill of mortality within that period.

Dysentery began to assume rather an epidemic form in the latter part of the 6th month, having carried off during that month 38 persons. In the 7th and 8th months it became much more general, and although not marked with any peculiar feature distinguishing it from other epidemics of the same nature, yet it was not found to yield as readily to calomel and opium, as formerly. Indeed, in many instances the patients continued to grow worse until these remedies were omitted. A mixture of castor oil, turpentine and laudanum was in some cases found beneficial, in others of no importance. The same was found to be the result of frequent trials of Hope's nitrous acid mixture. The most successful practice in the hands of your committee was, bleeding in the early stage, if much fever and tenesmus existed, followed by Dover's powder and anodyne injections. In some cases where bleeding was omitted, on account of the typhoid symptoms that prevailed, much regret was felt, as these mostly proved exceedingly obstinate and difficult to manage. The stomach in many instances was very irritable, rejecting every thing taken into it, until the system became prostrated, and the powers of life rapidly declined. In such instances much benefit was experienced by the application of a blister mixed with camphor, over the epigastrium; omitting all medicine by the mouth, and depending on injections of starch and laudanum, in sufficient quantities, to allay the irritability. To support the system, wine whey or port wine sangaree was given in frequent and small quantities.

The *Ninth month*, was remarkable for its drought, and notwithstanding the pastures were almost destroyed around the city, and in many parts of the county, for want of rain, yet bilious and intermittent fevers of a typhoid character prevailed to a considerable extent in the environs of the city, and particularly in the southern sections of the county. Many cases of dysentery also continued to be met with, though it was not as common as duringthe previous month.

The *Tenth* and *Eleventh* months, formed a period of general health. Still, the measles, scarlet fever, and erysipelas continued, and small-pox extended its ravages in different sections of the city, consigning 29 victims to the grave during the 11th month. The influence of re-vaccination in protecting two lads whom your committee

re-vaccinated in the S. E. public school during the prevalence of an epidemic small-pox in 1846, is worthy of notice.

In the *Eleventh* month of this year your committee was called upon to visit two children in Laurel court, the sons of Charles Roney; the oldest, William, had been imperfectly vaccinated when a child, the other, John, was an infant, and had not been vaccinated at all. The account received from the mother was, that one of her daughters, aged about 8 years, had sickened two weeks before, and that after 24 hour's fever, she broke out with an eruption that passed off in ten or twelve days, without any severe indisposition. When I saw her she was free from scabs, but marked with newly formed cicatrices. She had been vaccinated when a child, it is supposed perfectly. Another daughter about 6 years of age, sickened ten or twelve days after her elder sister. Between two and three weeks after the eldest sister was taken, she had fever, pain in the back, head and limbs for 24 hours, which then passed off without any further appearance. She had also been vaccinated perfectly. William, the little patient we were called upon to visit, was taken on the 8th of the month, he had fever and pain in his limbs and back, and on the 9th, just 24 hours after the first appearance of indisposition, an eruption broke out. On the 10th, when we saw him, he was covered with a vesicular eruption over the face and breast, accompanied with fever, that continued several days, during which time the pock increased and filled with a yellow fluid; a few running into each other. On the 6th day they began to dry, and on the 19th, just 12 days from the time he was first taken sick, some of the scabs on the face began to desquamate. The disease was unattended with the heavy smell common to variola. John, the infant, a few weeks old, was taken on the same day with his brother; the pock was small, and contained nothing but a milk-like fluid. He had but little fever, and disquamation took place rather sooner than with his brother, leaving a smooth cicatrix.

The two other brothers, re-vaccinated as previously stated, were constantly exposed to the infection without experiencing the slightest inconvenience. These cases are interesting, as they go to show that varioloid will communicate a similar mild form of variola to the unprotected subject, and secondly that re-vaccination protected two in the family from the attack.

The *Twelfth month*, with the exception of the influenza that made its appearance towards the close of the preceding month, partook of the general character of the two preceding months. Its form was bronchial, generally mild, but in some cases assuming quite a formidable character, being ushered in with chill and fever, sore throat, pain in the limbs, and occasionally a sense of suffocation. If promptly met in this stage by bleeding and the common diaphoretic remedies, it was soon relieved, but when neglected pneumonic symptoms sometimes supervened, and subjected the patient to a dangerous and protracted illness.

Table A.

SUMMARY OF METEOROLOGICAL OBSERVATIONS, FOR 1848.

Year 1848.	TEMPERATURE.			MEAN.		GREATEST DIURNAL VARIATION.	DEW POINT.	BAROMETER RANGE.		WINDS. Days the wind blew				WEATHER. Days that were			Days of			RAIN AND MELTED SNOW IN INCHES.
	Highest.	Lowest.	Mean.	Warmest Day.	Coldest Day.		Mean at 9 o'clock.	Highest.	Lowest.	North-East and East.	South-East and South.	South-West and West.	North-West and North.	Clear.	Cloudy.	Variable.	Rain.	Snow.	Hail.	
January,..	58	11	38 1/5	54 1/4	17 2/3	24	26.00	30.65	29.58	22	9	19	12	5	7	19	9	1	1	2.30
February,.	52	19	34 2/3	47	22	15	18.86	30.36	29.29	14	3	27	14	7	3	19	4	3	1	1.443
March,....	73	14	40	61 1/4	16 2/3	23	25.25	30.43	29.70	15	14	19	14	4	8	19	8	3	.	2.756
April,.....	76	36	54 1/5	64	40	26	33.73	30.50	29.60	15	12	18	17	5	8	17	8	2	2	1.541
May,.....	86	49	66	76 3/5	52 1/2	23	53.84	30.15	29.56	24	14	22	12	4	3	24	10	.	.	4.902
June,.....	95	54	73 1/5	85 3/4	61	23	58.00	30.05	29.70	3	5	39	13	6	2	22	9	.	1	4.433
July,.....	92	60	74 1/3	84 1/3	64	19	67.05	30.14	29.47	17	15	23	7	4	5	22	14	.	.	3.281
August,...	86	62	79	79	67 1/3	18	62.04	30.20	29.80	29	11	10	12	3	3	25	7	.	.	1.714
September,	86	44	65	75	50	20	49.13	30.25	29.60	4	11	27	18	9	0	21	5	.	.	1.805
October, ..	76	42	57 1/3	72	46 2/3	18	46.61	30.31	29.58	13	8	29	12	5	5	21	8	.	.	3.745
November,	58	27	42 2/3	52 1/3	32 2/3	17	29.36	30.30	29.50	10	9	28	13	7	5	18	6	1	.	2.343
December,	70	24	46 1/3	62	27	18	36.24	30.53	29.61	27	6	21	8	4	10	16	16	5	.	5.007
Mean,	95	11	56	85 2/3	16 2/3	26	42.17	30.65	29.29	193	117	282	152	63	59	242	104	15	5	35.000

Table B.

MEAN OF EACH MONTH FOR FOURTEEN YEARS, AND MEAN FOR EACH YEAR.

Years.	1835.	1836.	1837.	1838.	1839.	1840.	1841.	1842.	1843.	1844.	1845.	1846.	1847.	1848.
First Month,	32	29	27	37	31	20	35	39	39	28	37	34	34	38⅓
Second Month,	27	23	33	24	35	40	33	39	28	32	36	30	33	34⅔
Third Month,	37	33	39	41	43	45	43	48	31	44	42	43	39	40
Fourth Month,	49	50	48	47	55	55	50	52	52	58	52	53	52	54⅓
Fifth Month,	60	61	60	58	64	62	60	60	60	66–	62	64	61	66
Sixth Month,	69	64	68	74	67	69	71	70	70	70	72	69	70	73⅓
Seventh Month,	73	73	72	80	76	73	75	75	74	75	76	75	76	74⅓
Eighth Month,	69	68	72	76	71	73	72	72	74	73	75	75	73	75⅓
Ninth Month,	59	66	62	66	62	62	68	65	69	66	66	71	68	65
Tenth Month,	57	48	53	49	57	55	51	56	52	54	56	55	54	57⅓
Eleventh Month,	45	39	45	41	41	46	43	41	42	45	45	50	51	42⅔
Twelfth Month,	31	32	35	31	35	33	38	35	35	35	49	36	41	46⅓
Annual Mean,	50	49	51	51	53	52	53	55	51	54	55½	55	54⅓	55½

Table C.

SHOWING THE MORTALITY OF DISEASES IN EACH MONTH OF THE YEAR 1836.

Months.	Apoplexy, Palsy, Epilepsy.	Convulsions.	Dropsy of the Head.	Other Diseases of the Brain and Spinal Marrow.	Total of Deaths from Cephalic Diseases.	Consumption.	Croup, Diseases of the Trachea and Larynx.	Inflammation of the Lungs, and Bronchi.	Other Diseases of the Respiratory Organs.	Total of Deaths from Diseases of the Respiratory Organs.	Diseases of the Heart.	Cholera Morbus.	Cholera Infantum.	Dysentery.	Diarrhœa.	Inflammation of the Stomach and Bowels.	Other Diseases of the Abdominal Viscera.	Total of Deaths from Diseases of the Abdominal Viscera.	Fevers.	Typhus and Typhoid.	Scarlet Fever.	Puerperal Fever and Childbed.	Erysipelas.	Measles.	Still Born.	Miscellaneous.	Small Pox.	Varioloid.	Intemperance.	Number of Weeks.	Total Number of Deaths.
1st.	6	21	13	9	49	50	13	53	7	123	4	.	.		5	12	6	23	3	12	53	1	1	1	20	55	9	.	4	4	358
2d.	12	19	8	14	53	64	17	47	19	147	5	.	1		3	12	12	28	8	4	32	2	5	.	22	55	18	1	5	4	385
3rd.	14	24	14	10	62	62	8	28	9	107	8	.	.	1	4	9	8	22	22	7	21	3	4	.	23	65	13	.	9	4	366
4th.	9	26	16	17	68	79	10	62	8	159	10	1	.	3	6	17	5	32	14	38	23	2	3	.	25	93	13	.	10	5	490
5th.	18	17	11	18	64	69	4	21	5	98	5	.	2	3	5	18	8	36	6	38	12	1	1	.	22	73	12	.	11	4	380
6th.	11	23	15	11	60	54	11	13	7	85	7	.	4	1	5	18	6	34	10	42	14	2	2	1	29	83	6	.	10	4	385
7th.	13	25	25	10	73	63	5	26	4	98	9	4	69	10	27	21	12	143	22	25	14	4	1	.	34	117	6	.	14	5	560
8th.	12	16	20	10	58	49	3	30	10	92	4	2	71	34	28	26	5	164	19	17	6	.	2	.	19	119	.	1	11	4	515
9th.	13	22	14	19	68	74	7	28	5	114	3	4	59	24	24	26	17	150	25	4	6	1	2	.	37	103	1	.	12	5	530
10th.	9	24	9	11	53	47	16	25	6	94	3	.	5	11	17	10	12	50	18	6	10	.			22	110	.	.	11	4	382
11th.	11	23	13	22	69	63	21	64	5	153	7	.	1	4	11	26	16	58	15	9	16	3			34	106	3	.	12	5	684
12th.	10	26	9	11	56	70	12	66	12	160	8	1	.	3	2	10	8	24	9	6	16	4	1	1	29	91	1	.	7	4	413
Total	138	266	167	162	735	744	127	463	97	1430	75	14	212	93	137	135	115	764	171	208	223	22	22	3	316	1070	82	2	116	52	5,448

Table D.

SHOWING THE MORTALITY OF DISEASES IN EACH MONTH OF THE YEAR 1837.

Months.	Apoplexy, Palsy, Epilepsy.	Convulsions.	Dropsy of the Head.	Other Diseases of the Brain and Spinal Marrow.	Total of Deaths from Cephalic Diseases.	Consumption.	Croup, Diseases of the Trachea and Larynx.	Inflammation of the Lungs and Bronchi.	Other Diseases of the Respiratory Organs.	Total of Deaths from Diseases of the Respiratory Organs.	Cholera Morbus.	Cholera Infantum.	Dysentery.	Diarrhœa.	Inflammation of the Stomach and Bowels.	Other Diseases of the Abdominal Viscera.	Total of Deaths from Diseases of the Abdominal Viscera.	Fevers.	Typhus and Typhoid.	Scarlet Fever.	Puerperal Fever.	Erysipelas.	Measles.	Still Born.	Miscellaneous.	Small Pox.	Varioloid.	Intemperance.	Varicella.	Number of Weeks.	Total Number of Deaths.
1st.	6	23	10	21	60	60	20	62	9	151	6	..	3	3	20	4	30	12	5	20	2	3	5	23	61	6	1	8	.	4	393
2d.	11	30	20	9	70	75	15	56	10	156	2	..	1	8	13	9	31	5	2	16	2	2	4	25	74	3	1	6	.	4	399
3rd.	10	27	24	16	77	74	10	43	13	140	5	1	.	2	18	20	41	8	6	23	.	5	.	27	69	7	.	10	2	4	420
4th.	15	30	24	13	82	100	13	78	13	204	4	1	..	5	28	10	44	11	5	17	.	1	1	41	96	8	.	6	.	5	520
5th.	9	22	14	19	64	62	10	32	12	116	7	1	..	3	16	11	31	8	7	27	4	4	3	56	7	.	.	8	.	4	369
6th.	8	14	20	21	63	58	6	36	10	110	4	2	12	5	7	14	12	52	11	5	24	2	4	2	32	85	14	.	7	.	5	413
7th.	8	30	16	20	74	51	7	18	4	80	5	11	67	15	14	39	12	158	10	18	15	.	1	6	22	97	7	.	8	.	4	501
8th.	5	31	18	23	77	33	6	19	4	62	1	5	112	42	23	48	14	244	17	7	14	1	1	16	26	83	3	.	11	.	4	563
9th.	7	22	17	18	64	75	7	21	12	115	4	1	48	34	29	52	14	178	14	10	15	.	1	4	16	91	4	.	9	1	5	526
10th.	10	18	18	19	65	43	8	25	6	82	5	1	7	7	5	32	12	64	12	6	5	.	.	2	18	64	7	.	5	.	4	335
11th.	9	15	7	13	44	37	11	35	6	89	4	1	2	7	3	22	10	45	6	6	4	1	1	1	33	68	5	1	5	.	4	312
12th.	6	27	14	15	62	82	18	41	9	150	7	..	..	4	.	26	12	42	7	19	16	.	1	5	28	74	10	.	8	.	5	429
Total	104	289	202	207	802	750	131	466	108	1447	54	24	248	118	102	328	140	960	121	196	120	52	321	918	81	3	91	352	5,200		

Table E.

SHOWING THE MORTALITY OF DISEASES IN EACH MONTH OF THE YEAR 1838.

Months.	Apoplexy, Palsy, Epilepsy.	Convulsions.	Dropsy of the Head.	Other Diseases of the Brain and Spinal Marrow.	Total from Cephalic Diseases.	Consumption.	Croup, Diseases of the Trachea and Larynx.	Inflammation of the Lungs and Bronchi.	Other Diseases of the Respiratory Organs.	Total of Deaths from Diseases of the Respiratory Organs.	Diseases of the Heart.	Cholera Morbus.	Cholera Infantum.	Dysentery.	Diarrhœa.	Inflammation of the Stomach and Bowels.	Other Diseases of the Abdominal Viscera.	Total of Deaths from Diseases of the Abdominal Viscera.	Fevers.	Typhus and Typhoid.	Scarlet Fever.	Puerperal Fever.	Erysipelas.	Measles.	Still Born.	Miscellaneous.	Small Pox.	Variolöid.	Intemperance.	Hydrophobia.	Chicken Pox.	Number of Weeks.	Total Number of Deaths.
1st.	9	20	13	18	60	51	13	45	8	117	4	1	·	4	2	29	10	46	10	17	18	1	1	6	28	64	8	10	·	·	4	390
2d.	13	33	16	15	77	60	15	39	12	126	3	·	·	·	1	23	10	34	5	15	22	·	4	20	21	66	5	1	4	·	·	4	403
3rd.	13	33	12	25	83	91	12	53	13	169	5	2	·	3	4	12	12	33	12	7	19	4	4	32	45	78	10	·	7	·	5	508
4th.	7	21	14	24	66	66	10	53	14	143	4	·	·	·	4	26	10	40	3	1	15	2	2	23	24	56	4	·	5	1	·	4	389
5th.	5	28	23	14	70	78	12	63	15	168	6	1	·	2	2	22	13	40	6	1	20	4	3	21	31	96	8	·	8	·	·	5	482
6th.	11	30	25	19	85	44	5	23	7	79	4	2	18	7	4	18	9	58	7	1	3	1	2	4	19	71	4	·	6	·	·	4	344
7th.	25	35	27	34	121	42	6	29	5	82	5	2	155	27	24	44	11	263	8	4	1	3	1	13	30	126	3	·	16	·	·	4	676
8th.	19	27	33	34	113	74	3	19	5	101	12	3	210	44	29	66	22	374	10	2	2	2	·	1	41	111	6	·	10	·	·	5	785
9th.	7	18	20	13	58	53	9	27	8	97	8	2	36	30	19	44	8	139	18	6	4	1	1	1	23	78	·	·	11	1	·	4	446
10th.	9	22	10	17	58	62	19	19	9	109	6	·	7	18	11	38	16	90	12	5	12	1	·	·	26	90	·	·	11	·	·	5	420
11th.	7	19	3	12	41	57	15	23	6	101	7	·	·	2	2	19	11	34	5	3	10	1	2	·	28	59	·	·	4	·	·	4	295
12th.	14	19	6	16	55	47	15	35	8	105	5	·	·	4	1	18	16	39	5	4	7	1	·	2	28	59	·	·	4	·	1	4	315
Total	139	305	202	241	887	725	134	428	110	1397	69	13	423	141	103	357	148	1190	101	64	133	19	22	123	344	954	49	196	2	1	52	5,453

Table F.

SHOWING THE MORTALITY OF DISEASES IN EACH MONTH OF THE YEAR 1839.

Months.	Apoplexy, Palsy, Epilepsy.	Convulsions.	Dropsy of the Head.	Other Diseases of the Brain and Spinal Marrow.	Total of Deaths from Cephalic Diseases.	Consumption.	Croup, Diseases of the Trachea and Larynx.	Inflammation of the Lungs, and Bronchi.	Other Diseases of the Respiratory Organs.	Total of Deaths from Diseases of the Respiratory Organs.	Diseases of the Heart.	Cholera Morbus.	Cholera Infantum.	Dysentery.	Diarrhœa.	Inflammation of the Stomach and Bowels.	Other Diseases of the Abdominal Viscera.	Total of Deaths from Diseases of the Abdominal Viscera.	Fevers.	Typhus and Typhoid.	Scarlet Fever.	Puerperal Fever	Erysipelas.	Measles.	Still Born.	Miscellaneous.	Small Pox.	Intemperance.	Chicken Pox.	Number of Weeks.	Total Number of Deaths.
1st.	8	31	19	17	75	80	20	63	18	181	7	.	.	1	2	23	14	40	9	2	12	3	2	.	34	84	.	14	.	5	463
2d.	9	24	16	12	61	72	14	65	11	162	4	.	.	2	6	16	15	39	3	1	14	3	2	1	36	67	.	3	.	4	396
3rd.	7	32	19	14	72	59	7	63	9	138	12	.	.	2	2	24	16	44	1	2	18	1	1	.	28	74	.	4	.	4	385
4th.	5	23	14	11	53	80	11	50	11	152	3	.	.	2	1	14	10	27	5	2	9	3	5	1	26	78	.	4	.	4	368
5th.	7	30	17	20	74	62	15	48	9	134	9	.	5	3	5	29	6	48	4	.	17	1	3	1	24	78	2	7	.	5	402
6th.	14	33	21	19	87	41	9	46	12	108	4	4	37	12	24	26	11	154	7	1	12	1	.	.	21	64	.	7	1	4	428
7th.	14	36	19	41	110	53	4	104	15	176	4	11	122	29	27	39	13	241	6	4	20	3	.	.	31	35	1	7	.	5	687
8th.	10	28	23	16	77	51	2	50	7	110	4	2	69	22	18	44	6	161	16	6	13	.	3	.	27	85	.	7	.	4	509
9th.	10	14	14	25	63	51	2	30	1	84	4	4	18	22	5	35	5	89	17	4	14	.	1	.	37	66	.	5	.	4	384
10th.	12	19	13	21	65	50	7	31	5	93	10	.	2	21	10	31	18	82	23	7	25	1	1	.	26	82	.	6	.	5	421
11th.	14	13	13	12	52	55	6	26	5	92	7	.	.	3	12	22	15	52	11	6	25	1	1	.	32	46	1	2	.	4	328
12th.	12	14	7	15	48	53	11	36	8	108	4	.	.	1	3	11	10	25	6	4	45	1	.	.	23	55	1	2	.	4	322
Total	122	297	195	223	837	707	108	612	111	1538	72	21	253	120	115	314	139	1002	108	39	224	18	19	3	345	864	5	68	152	5,073

Table 6.

SHOWING THE MORTALITY OF DISEASES IN EACH MONTH OF THE YEAR 1840.

Months.	Apoplexy, Palsy, Epilepsy.	Convulsions.	Dropsy of the Head.	Other Diseases of the Brain and Spinal Marrow.	Total of Deaths from Cephalic Diseases.	Consumption.	Croup, Diseases of the Trachea and Larynx.	Inflammation of the Lungs and Bronchi.	Other Diseases of the Respiratory Organs.	Total of Deaths from Diseases of the Respiratory Organs.	Diseases of the Heart.	Cholera Morbus.	Cholera Infantum.	Dysentery.	Diarrhœa.	Inflammation of the Stomach and Bowels.	Other Diseases of the Abdominal Viscera.	Total of Deaths from Diseases of the Abdominal Viscera.	Fevers.	Typhus and Typhoid.	Scarlet Fever.	Puerperal Fever.	Erysipelas.	Measles.	Still Born.	Miscellaneous.	Small Pox.	Intemperance.	Number of Weeks.	Total Number of Deaths.
1st.	16	26	14	22	78	80	12	62	15	169	15	1	·	2	4	35	16	58	5	7	38	3	1	·	42	106	9	6	6	537
2d.	12	29	5	25	71	84	9	28	11	132	4	·	·	·	4	21	12	37	11	2	32	4	1	·	24	54	2	7	4	381
3rd.	15	36	23	25	99	86	9	58	13	166	4	1	·	1	4	30	8	44	16	·	64	2	1	·	21	82	3	11	5	516
4th.	15	20	16	16	67	80	10	32	9	131	8	·	1	1	4	21	15	41	5	3	23	4	2	·	26	56	5	5	4	376
5th.	9	23	12	16	59	68	7	27	5	107	5	·	2	3	5	21	15	46	3	2	17	·	·	·	29	56	9	3	4	336
6th.	12	20	13	25	70	56	3	26	8	93	4	6	16	4	9	21	11	67	7	9	5	4	1	1	32	60	5	7	4	365
7th.	19	38	24	30	111	80	7	23	9	109	13	7	94	49	28	39	15	232	8	3	10	2	·	·	28	96	8	7	5	637
8th.	6	22	17	23	68	43	5	15	6	69	11	5	62	25	13	47	10	162	19	9	9	·	·	·	19	64	4	6	4	440
9th.	6	13	10	22	51	59	2	10	5	76	8	2	24	16	6	31	16	95	19	11	9	1	·	·	32	74	3	8	4	387
10th.	12	13	7	21	53	65	12	23	5	105	7	2	1	15	9	33	14	74	10	8	15	2	·	1	43	80	3	5	5	406
11th.	15	13	5	7	40	45	10	13	5	73	6	·	·	1	8	25	11	45	4	4	7	4	·	·	24	47	8	2	4	264
12th.	19	24	14	19	76	60	18	44	9	131	11	·	·	2	6	21	7	36	9	7	4	1	·	·	34	75	5	10	4	400
Total	156	276	160	251	843	806	104	363	100	1371	96	22	200	119	100	345	149	937	116	65	233	27	6	2	359	850	64	77	52	5,045

Table II.

SHOWING THE MORTALITY OF DISEASES IN EACH MONTH OF THE YEAR 1841.

Months.	Apoplexy, Palsy, Epilepsy.	Convulsions.	Dropsy of the Head.	Other Diseases of the Brain and Spinal Marrow.	Total of Deaths from Cephalic Diseases.	Consumption.	Croup, Diseases of the Trachea and Larynx.	Inflammation of the Lungs, and Bronchi.	Other Diseases of the Respiratory Organs.	Total of Deaths from Diseases of the Respiratory Organs.	Diseases of the Heart.	Cholera Morbus.	Cholera Infantum.	Dysentery.	Diarrhœa.	Inflammation of the Stomach and Bowels.	Other Diseases of the Abdominal Viscera.	Total of Deaths from Diseases of the Abdominal Viscera.	Fevers.	Typhus and Typhoid.	Scarlet Fever.	Puerperal Fever	Erysipelas.	Measles.	Still Born.	Miscellaneous.	Small Pox.	Varioloid.	Intemperance.	Number of Weeks.	Total Number of Deaths.
1st.	7	22	8	18	55	44	7	24	6	81	10	·	·	1	3	15	8	27	6	8	10	3	·	1	40	47	9	·	4	4	301
2d.	14	23	24	15	76	77	19	46	8	150	6	·	·	5	3	30	14	52	5	4	9	2	3	2	31	48	8	·	3	4	400
3rd.	16	34	27	28	105	93	19	100	17	229	15	·	·	2	2	20	16	40	3	10	7	3	2	14	34	71	31	·	3	5	567
4th.	12	22	9	15	58	82	10	63	14	169	12	·	·	2	·	24	23	49	6	5	2	3	6	32	29	59	20	1	8	4	459
5th.	12	15	20	35	82	75	15	64	14	168	12	2	·	4	1	28	23	58	5	5	6	3	4	36	31	67	16	·	3	4	496
6th.	8	26	15	15	58	77	9	27	8	121	10	·	19	1	5	41	19	85	12	9	4	1	4	15	29	71	12	·	11	4	442
7th.	15	40	32	35	122	60	11	30	8	109	5	3	154	31	37	68	21	344	15	9	2	1	1	7	32	116	18	1	8	5	760
8th.	9	32	23	39	103	56	4	14	7	81	8	2	118	46	37	58	21	282	12	7	3	1	1	3	33	84	16	·	2	4	626
9th.	7	16	15	18	56	43	4	15	9	71	4	1	33	8	13	40	12	107	14	11	8	3	·	2	25	70	31	2	6	4	410
10th.	14	20	10	19	63	54	14	22	4	94	4	·	1	10	9	29	18	67	25	12	7	2	1	1	28	73	31	1	5	4	413
11th.	10	24	8	11	53	63	13	24	8	108	4	·	·	8	2	18	9	37	14	7	7	1	·	·	31	56	32	.10	4	4	361
12th.	14	21	12	18	65	66	8	61	15	150	6	·	·	7	1	26	19	54	7	14	19	2	6	3	27	68	36	1	5	5	462
Total	138	289	203	266	896	790	133	490	118	1531	96	8	325	125	113	407	202	1402	124	101	84	25	28	114	370	830	260	6	68	52	5,697

Table I.

SHOWING THE MORTALITY OF DISEASES IN EACH MONTH OF THE YEAR 1842.

Months	Apoplexy, Palsy, Epilepsy.	Convulsions.	Dropsy of the Head.	Other Diseases of the Brain and Spinal Marrow.	Total of Deaths from Cephalic Diseases.	Consumption.	Croup, Diseases of the Trachea and Larynx.	Inflammation of the Lungs and Bronchi.	Other Diseases of the Respiratory Organs.	Total of Deaths from Diseases of the Respiratory Organs.	Diseases of the Heart.	Cholera Morbus.	Cholera Infantum.	Dysentery.	Diarrhœa.	Inflammation of the Stomach and Bowels.	Other Diseases of the Abdominal Viscera.	Total of Deaths from Diseases of the Abdominal Viscera.	Fevers.	Typhus and Typhoid.	Scarlet Fever.	Puerperal Fever.	Erysipelas.	Measles.	Still Born.	Miscellaneous.	Small Pox.	Varioloid.	Intemperance.	Number of Weeks.	Total Number of Deaths.
1st.	7	17	22	13	59	49	19	51	6	125	11	.	.	3	1	18	13	35	8	11	19	5	2	1	34	76	35	.	12	4	434
2d.	12	24	20	25	81	86	18	48	5	157	5	.	.	2	1	31	15	49	7	7	17	6	4	1	36	67	22	1	4	4	465
3rd.	19	43	23	27	112	89	14	82	13	198	19	.	.	1	2	34	12	49	24	12	26	4	10	6	36	79	23	1	4	5	603
4th.	14	27	22	27	90	65	10	76	14	165	8	1	4	2	3	22	27	59	8	6	8	12	3	1	23	62	20	2	3	4	470
5th.	13	33	13	15	74	58	9	59	11	137	8	.	1	2	11	35	16	65	10	11	15	1	1	1	21	64	16	.	1	4	425
6th.	11	32	28	30	101	74	11	76	8	169	11	1	32	15	12	44	13	117	10	14	23	3	3	6	33	98	13	.	3	5	606
7th.	12	39	27	43	121	54	6	61	8	129	9	6	105	19	29	41	19	219	9	7	13	.	3	4	32	82	3	.	2	4	624
8th.	9	29	27	25	90	72	6	61	3	142	11	1	79	26	14	50	18	188	16	11	4	2	2	3	37	87	4	.	3	5	600
9th.	8	24	14	24	70	52	14	33	5	104	8	3	22	13	4	39	6	87	18	14	12	2	.	.	17	51	3	.	1	4	387
10th.	10	10	18	15	53	42	20	30	4	96	9	.	2	12	5	20	9	48	14	11	15	1	.	.	37	64	.	1	1	4	350
11th.	6	21	9	10	46	51	24	44	10	129	7	.	.	6	1	24	10	41	10	12	22	3	1	.	39	57	1	.	2	4	370
12th.	19	26	14	16	75	61	19	65	11	156	13	.	.	1	3	29	13	46	12	8	35	6	4	.	34	94	10	.	1	5	494
Total	140	325	237	270	972	753	170	686	98	1707	119	12	245	100	86	387	151	1003	146	124	209	43	35	23	379	881	150	5	37	52	5,828

Table J.

SHOWING THE MORTALITY OF DISEASES IN EACH MONTH OF THE YEAR 1843.

Months.	Apoplexy, Palsy, Epilepsy.	Convulsions.	Dropsy of the Head.	Other Diseases of the Brain and Spinal Marrow.	Total of Deaths from Cephalic Diseases.	Consumption.	Croup, Diseases of the Trachea and Larynx.	Inflammation of the Lungs and Bronchi.	Other Diseases of the Respiratory Organs.	Total of Deaths from Diseases of the Respiratory Organs.	Diseases of the Heart.	Cholera Morbus.	Cholera Infantum.	Dysentery.	Diarrhœa.	Inflammation of the Stomach and Bowels.	Other Diseases of the Abdominal Viscera.	Total of Deaths from Diseases of the Abdominal Viscera.	Fevers.	Typhus and Typhoid.	Scarlet Fever.	Puerperal Fever.	Erysipelas.	Measles.	Still Born.	Miscellaneous.	Small Pox.	Varioloid.	Intemperance.	Hydrophobia.	Number of Weeks.	Total Number of Deaths.
1st.	9	15	23	20	68	60	17	40	8	125	6	.	.	2	1	25	13	41	3	4	37	8	6	.	38	70	5	1	6	.	4	417
2d.	9	23	11	21	64	58	18	40	7	123	12	.	.	1	1	26	17	45	4	4	23	4	7	.	30	61	5	.	1	.	4	383
3rd.	12	33	14	15	74	94	18	79	16	207	8	1	.	12	3	43	26	84	2	7	60	7	5	.	42	103	6	.	8	.	5	615
4th.	17	29	20	15	81	76	8	48	7	139	22	.	.	4	2	26	17	49	8	4	32	3	7	1	15	82	5	.	6	.	4	454
5th.	15	34	25	16	90	75	12	40	7	134	18	1	.	2	3	27	23	56	6	7	55	8	13	.	33	78	3	.	5	.	4	506
6th.	11	22	19	20	72	49	8	26	4	87	3	1	18	4	12	26	14	75	5	1	47	.	2	.	26	82	1	.	6	1	4	408
7th.	16	20	18	28	82	55	11	21	16	103	5	7	113	15	12	58	11	216	3	5	36	1	.	2	35	84	1	.	10	.	4	583
8th.	5	30	24	22	131	54	10	29	6	99	11	5	90	20	26	50	12	203	6	10	21	1	1	.	33	111	1	.	5	.	5	583
9th.	9	20	13	12	54	45	3	13	7	68	9	2	38	9	17	50	10	126	19	4	21	1	1	.	26	66	.	.	3	.	4	398
10th.	12	14	4	16	50	56	19	43	4	122	9	2	9	19	8	32	10	80	20	14	14	2	1	.	36	81	1	.	2	.	5	429
11th.	5	20	11	15	51	60	25	51	5	141	12	1	.	3	2	26	16	48	5	8	22	1	3	.	31	69	2	.	6	.	4	399
12th.	11	20	6	13	50	60	18	41	9	128	14	.	.	2	4	14	14	34	1	1	28	4	4	.	26	59	1	.	4	.	4	354
Total	131	280	188	213	767	742	167	471	96	1476	129	18	268	93	91	403	183	1057	82	69	396	40	50	3	371	946	31	1	62	1	52	5,529

Table K.

SHOWING THE MORTALITY OF DISEASES IN EACH MONTH OF THE YEAR 1844.

Months.	Apoplexy, Palsy, Epilepsy.	Convulsions.	Dropsy of the Head.	Other Diseases of the Brain and Spinal Marrow.	Total of Deaths from Cephalic Diseases.	Consumption.	Croup, Diseases of the Trachea and Larynx.	Inflammation of the Lungs and Bronchi.	Other Diseases of the Respiratory Organs.	Total of Deaths from Diseases of the Respiratory Organs.	Diseases of the Heart.	Cholera Morbus.	Cholera Infantum.	Dysentery.	Diarrhœa.	Inflammation of the Stomach and Bowels.	Other Diseases of the Abdominal Viscera.	Total of Deaths from Diseases of the Abdominal Viscera.	Fevers.	Typhus and Typhoid.	Scarlet Fever.	Puerperal Fever.	Erysipelas.	Measles.	Still Born.	Miscellaneous.	Small Pox.	Intemperance.	Number of Weeks.	Total Number of Deaths.
1st.	15	27	31	21	94	76	28	60	18	182	9	1	.	.	1	17	16	35	5	7	43	3	5	.	40	92	3	.	5	518
2d.	9	22	16	23	70	63	21	52	16	152	14	.	.	1	1	14	15	31	3	4	39	2	3	.	22	93	.	.	4	433
3rd.	5	31	19	15	70	90	19	59	10	178	10	.	.	5	1	20	8	34	14	2	29	.	2	1	27	64	4	.	4	435
4th.	6	20	11	20	57	69	10	52	4	135	8	.	.	2	4	13	16	35	10	3	21	2	4	.	23	78	1	5	4	382
5th.	14	32	21	20	87	69	11	54	5	139	10	.	8	2	10	18	19	57	10	5	15	3	1	1	24	99	4	7	5	462
6th.	10	30	26	27	93	67	24	38	6	135	13	3	60	6	10	25	15	119	5	6	27	2	.	.	26	111	2	7	4	546
7th.	9	50	41	27	127	61	2	44	9	116	13	6	116	16	28	32	21	219	22	6	12	.	2	.	34	143	1	5	5	700
8th.	7	24	23	22	76	61	9	32	3	105	6	2	50	9	12	25	11	109	18	5	9	1	.	.	13	94	1	3	4	440
9th.	16	25	17	13	71	44	9	19	17	89	9	.	10	5	9	40	16	80	18	14	16	1	2	.	31	51	.	5	4	387
10th.	18	33	18	18	87	64	36	41	4	145	10	2	2	6	11	29	15	65	27	20	16	2	3	.	26	75	.	10	5	486
11th.	7	20	11	7	45	79	22	30	4	135	8	1	1	2	5	17	18	44	5	1	21	.	.	.	21	55	.	.	4	335
12th.	5	27	9	19	60	55	27	50	9	141	14	.	.	3	.	20	7	30	8	2	21	3	1	.	40	58	2	6	4	386
Total	121	341	243	232	917	798	218	531	105	1652	124	15	247	47	92	270	177	858	145	75	269	19	23	2	327	1013	18	48	52	5,510

Table L.

SHOWING THE MORTALITY OF DISEASES IN EACH MONTH OF THE YEAR 1845.

Months.	Apoplexy, Palsy, Epilepsy.	Convulsions.	Dropsy of the Head.	Other Diseases of the Brain and Spinal Marrow.	Total of Deaths from Cephalic Diseases.	Consumption.	Croup, Diseases of the Trachea and Larynx.	Inflammation of the Lungs and Bronchi.	Other Diseases of the Respiratory Organs.	Total of Deaths from Diseases of the Respiratory Organs.	Diseases of the Heart.	Cholera Morbus.	Cholera Infantum.	Dysentery.	Diarrhœa.	Inflammation of the Stomach and Bowels.	Other Diseases of the Abdominal Viscera.	Total of Deaths from Diseases of the Abdominal Viscera.	Fevers.	Typhus and Typhoid.	Scarlet Fever.	Puerperal Fever.	Erysipelas.	Measles.	Still Born.	Miscellaneous.	Small Pox.	Varioloid.	Intemperance and Exposure.	Number of Weeks.	Total Number of Deaths.
1st.	13	36	30	28	107	80	34	93	15	222	8	.	.	3	2	20	20	45	6	12	32	7	5	.	36	57	1	1	7	5	546
2d.	13	30	17	18	70	77	20	60	17	174	12	.	.	1	3	19	17	40	5	7	19	4	5	6	30	71	3	.	3	4	457
3rd.	20	62	33	24	139	88	19	79	14	200	21	1	1	.	1	31	16	50	8	8	26	6	11	27	43	114	4	.	6	5	663
4th.	13	30	21	31	95	103	24	69	16	212	9	.	.	1	.	27	16	44	7	6	21	9	8	31	29	80	5	.	8	4	564
5th.	18	30	18	32	103	77	18	40	8	143	19	.	8	5	4	27	14	58	5	2	14	7	6	13	27	92	10	1	5	4	500
6th.	12	33	35	39	119	63	13	29	2	107	16	3	76	10	16	36	13	154	6	3	21	2	5	6	25	113	6	.	5	4	588
7th.	21	48	38	57	164	54	14	26	9	103	14	13	151	16	13	37	28	258	12	5	10	2	2	5	28	164	5	.	11	5	783
8th.	9	25	18	25	77	55	11	27	6	99	11	3	53	11	15	26	15	153	11	7	7	1	2	1	31	82	5	.	5	4	462
9th.	12	29	13	26	80	57	11	12	7	87	10	1	15	12	3	22	17	70	26	13	3	.	1	.	30	77	4	2	5	4	408
10th.	15	22	12	18	67	67	22	30	6	125	11	1	5	3	3	18	11	41	26	9	6	1	.	.	36	86	29	1	4	5	442
11th.	10	10	11	21	52	55	19	36	7	117	11	.	1	1	4	17	14	37	8	7	19	.	.	.	25	69	26	.	3	4	374
12th.	11	25	10	14	59	54	19	31	8	112	14	.	1	2	6	15	9	33	3	21	21	3	4	1	20	102	92	2	5	4	480
Total	167	380	256	336	1140	830	224	532	115	1701	156	22	311	65	70	295	190	983	123	100	199	42	49	90	360	1107	190	7	67	52	6,247

Table M.

SHOWING THE MORTALITY OF DISEASES IN EACH MONTH OF THE YEAR 1846.

Months.	Apoplexy, Palsy, Epilepsy.	Convulsions.	Dropsy of the Head.	Other Diseases of the Brain and Spinal Marrow.	Total of Deaths from Cephalic Diseases.	Consumption.	Croup, Diseases of the Trachea and Larynx.	Inflammation of the Lungs and Bronchi.	Other Diseases of the Respiratory Organs.	Total of Deaths from Diseases of the Respiratory Organs.	Diseases of the Heart.	Cholera Morbus.	Cholera Infantum.	Dysentery.	Diarrhœa.	Inflammation of the Stomach and Bowels.	Other Diseases of the Abdominal Viscera.	Total of Deaths from Diseases of the Abdominal Viscera.	Fevers.	Typhus and Typhoid.	Scarlet Fever.	Puerperal Fever.	Erysipelas.	Measles.	Still Born.	Miscellaneous.	Small Pox.	Varioloid.	Intemperance, Exposure, &c.	Number of Weeks.	Total Number of Deaths.
1st.	17	26	17	28	88	74	17	47	7	145	12	·	·	1	3	30	20	54	4	7	27	1	9	1	43	92	102	2	5	5	592
2d.	8	36	20	28	92	86	13	50	12	161	16	·	2	·	·	26	23	51	6	3	24	2	4	·	34	68	47	·	3	4	511
3rd.	13	25	28	28	94	95	11	53	21	180	10	·	·	1	·	28	19	48	3	3	22	6	3	·	20	88	38	2	2	4	519
4th.	20	21	13	26	80	95	15	43	13	166	15	·	1	·	5	29	15	50	4	5	16	3	3	·	28	70	27	·	3	4	470
5th.	15	31	11	37	94	75	13	49	12	149	15	2	3	1	9	38	24	77	6	4	21	4	9	·	28	93	30	1	2	5	533
6th.	12	26	22	33	93	57	4	35	5	101	11	2	58	5	16	51	17	149	9	4	19	4	·	1	23	82	3	·	6	4	505
7th.	21	43	33	42	139	76	6	44	10	136	19	10	137	22	25	71	22	287	13	14	15	3	5	1	43	115	4	·	5	5	799
8th.	14	35	24	24	97	44	9	38	2	93	9	·	86	11	17	46	16	176	10	9	15	1	2	·	37	82	·	·	1	4	532
9th.	21	50	26	32	129	55	10	64	9	138	8	2	35	6	16	38	14	111	32	12	12	1	1	1	40	99	·	·	3	5	587
10th.	9	25	16	22	72	59	15	44	10	128	14	2	4	9	11	47	12	85	33	13	14	2	·	·	28	79	·	·	4	4	472
11th.	9	23	13	17	62	51	19	40	7	117	17	·	2	6	5	30	12	55	5	8	14	4	·	1	36	63	·	·	6	4	388
12th.	23	28	23	31	105	91	26	60	8	185	11	·	1	6	7	30	15	59	5	14	29	2	·	·	56	89	·	·	9	5	564
Total	182	369	246	348	1145	858	158	567	116	1699	155	18	329	68	114	464	209	1202	130	96	228	33	36	5	416	1020	251	5	49	52	6,472

Table N.

SHOWING THE MORTALITY OF DISEASES IN EACH MONTH OF THE YEAR 1847.

Months.	Apoplexy, Palsy, Epilepsy.	Convulsions.	Dropsy of the Head.	Other Diseases of the Brain and Spinal Marrow.	Total of Deaths from Cephalic Diseases.	Consumption.	Croup, Diseases of the Trachea and Larynx.	Inflammation of the Lungs and Bronchi.	Other Diseases of the Respiratory Organs.	Total of Deaths from Diseases of the Respiratory Organs.	Diseases of the Heart.	Cholera Morbus.	Cholera Infantum.	Dysentery.	Diarrhœa.	Inflammation of the Stomach and Bowels.	Other Diseases of the Abdominal Viscera.	Total of Deaths from Diseases of the Abdominal Viscera.	Fevers.	Typhus and Typhoid.	Scarlet Fever.	Puerperal Fever and Childbed.	Erysipelas.	Measles.	Still Born.	Miscellaneous.	Small Pox.	Variolaid.	Intemperance, Exposure, &c.	Number of Weeks.	Total Number of Deaths.
1st.	22	32	21	23	113	74	17	37	14	142	13	.	1	1	3	14	14	33	8	7	29	1	2	.	38	96	.	.	8	4	476
2d.	17	25	19	19	82	63	15	47	19	144	6	.	.	1	2	16	11	30	6	7	25	3	2	.	31	90	.	.	4	4	421
3rd.	20	37	22	27	109	101	16	57	11	185	15	.	2	2	3	34	15	56	7	4	42	2	6	6	43	92	.	1	9	5	574
4th.	12	24	25	27	92	75	16	50	10	151	14	.	2	4	4	17	11	38	6	11	31	1	3	1	19	95	.	.	7	4	466
5th.	12	38	26	32	113	97	17	66	13	193	13	.	5	4	7	44	32	92	25	26	41	5	10	3	40	122	4	.	8	5	690
6th.	15	39	26	23	109	77	8	46	10	141	20	1	63	15	18	49	22	178	8	41	34	2	1	18	30	118	2	.	1	4	687
7th.	15	46	36	45	149	60	5	46	15	126	16	7	194	44	41	73	15	374	20	44	30	2	5	27	23	122	2	.	3	4	936
8th.	14	40	23	41	126	64	3	30	9	106	9	7	145	45	30	75	21	323	18	45	23	2	2	11	36	119	.	.	4	5	816
9th.	12	19	12	31	74	51	11	19	19	100	9	2	24	21	13	41	25	126	16	21	15	3	3	6	24	79	1	.	8	4	485
10th.	16	20	21	15	72	46	17	25	16	104	9	2	6	11	3	39	17	78	12	11	16	4	3	3	34	87	.	1	22	4	456
11th.	12	21	14	12	59	59	15	37	16	127	12	.	11	1	1	22	20	54	15	64	12	3	4	1	26	86	.	.	20	4	494
12th.	11	22	14	25	62	89	20	45	14	168	13	.	10	7	38	18	73	16	69	39	5	5	2	53	110	.	.	.	43	5	648
Total	178	363	259	320	1160	856	160	505	166	1687	149	19	442	169	132	462	221	1455	156	356	337	33	46	78	397	1217	9	2	137	52	7,149

Table 6.

SHOWING THE MORTALITY OF DISEASES IN EACH MONTH OF THE YEAR 1848.

Months.	Apoplexy, Palsy, Epilepsy.	Convulsions.	Dropsy of the Head.	Other Diseases of the Brain and Spinal Marrow.	Total of Deaths from Cephalic Diseases.	Consumption.	Croup, Diseases of the Trachea and Larynx.	Inflammation of the Lungs and Bronchi.	Other Diseases of the Respiratory Organs.	Total of Deaths from Diseases of the Respiratory Organs.	Diseases of the Heart.	Cholera Morbus.	Cholera Infantum.	Dysentery.	Diarrhœa.	Inflammation of the Stomach and Bowels.	Other Diseases of the Abdominal Viscera.	Total of Deaths from Diseases of the Abdominal Viscera.	Fevers.	Typhus and Typhoid.	Scarlet Fever.	Puerperal Fever.	Erysipelas.	Measles.	Still Born.	Miscellaneous.	Small Pox.	Varioloid.	Intemperance.	Hydrophobia.	Number of Weeks.	Total Number of Deaths.
1st.	15	22	26	30	93	80	19	15	33	147	12	·	1	7	4	16	37	65	5	45	21	4	3	4	33	90	·	·	14	1	4	536
2d.	15	29	16	14	75	86	24	31	41	182	13	·	2	6	2	17	28	55	4	40	19	6	5	8	35	83	·	·	11	·	4	536
3rd.	15	47	24	36	122	124	29	39	55	247	19	·	·	3	2	33	40	78	6	27	22	8	13	17	44	106	1	·	15	2	5	727
4th.	14	21	25	26	86	96	20	30	45	191	21	·	1	3	3	17	39	63	10	23	25	5	11	27	46	91	·	·	3	1	4	603
5th.	15	40	20	55	130	108	16	42	44	210	11	4	10	7	7	22	52	102	16	21	17	4	9	17	35	120	6	·	10	·	5	708
6th.	16	52	33	50	151	74	3	18	41	136	16	10	131	38	14	56	7	256	7	22	12	1	8	14	49	140	2	·	2	·	4	810
7th.	9	43	18	50	120	61	13	8	39	121	12	12	163	65	27	39	32	338	5	21	5	3	5	7	38	131	2	·	·	·	4	808
8th.	15	38	20	57	130	61	8	16	32	117	14	3	109	77	26	39	49	303	19	23	12	4	4	2	43	120	13	1	5	·	5	830
9th.	15	31	15	23	84	52	8	19	40	119	17	·	33	43	15	52	26	169	18	13	7	·	6	1	32	69	1	·	5	1	4	539
10th.	13	25	19	24	91	54	16	38	11	119	10	·	3	18	10	46	17	94	13	13	4	4	2	1	38	84	13	·	3	·	4	479
11th.	26	29	14	39	108	83	23	58	11	175	18	1	4	27	5	35	20	92	7	20	15	2	8	2	34	110	29	·	9	·	5	629
12th.	11	25	17	13	66	76	26	57	7	166	19	1	·	10	7	38	20	76	11	19	13	2	4	·	32	79	33	1	1	·	4	522
Total	180	402	247	417	1256	955	205	371	399	1930	182	31	457	304	122	410	367	1691	121	287	72	43	78	100	459	1223	100	2	78	5	52	7,727

Table P.

SHOWING THE MORTALITY OF DISEASES IN EACH YEAR FOR THIRTEEN YEARS.

Years.	Apoplexy, Palsy, Epilepsy.	Convulsions.	Dropsy of the Head.	Other Diseases of the Brain and Spinal Marrow.	Total of Deaths from Cephalic Diseases.	Consumption.	Croup, Diseases of the Trachea and Larynx.	Inflammation of the Lungs and Bronchi.	Other Diseases of the Respiratory Organs.	Total of Deaths from Diseases of the Respiratory Organs.	Diseases of the Heart.	Cholera Morbus.	Cholera Infantum.	Dysentery.	Diarrhœa.	Inflammation of the Stomach and Bowels.	Other Diseases of the Abdominal Viscera.	Total of Deaths from Diseases of the Abdominal Viscera.	Fevers.	Typhus and Typhoid.	Scarlet Fever.	Puerperal Fever.	Erysipelas.	Measles.	Still Born.	Miscellaneous.	Small Pox.	Varioloid.	Intemperance.	Hydrophobia.	Chicken Pox.	Total Number of Deaths.
1836	138	266	167	162	735	744	127	463	97	1430	75	14	212	93	137	135	115	764	171	208	223	22	22	3	316	1070	82	2	116	.	.	5,448
1837	104	289	202	207	802	750	131	466	108	1447	54	24	248	118	102	328	140	960	121	96	196	12	20	52	321	918	81	3	91	.	.	5,200
1838	139	305	202	241	887	725	134	428	110	1397	69	13	423	141	103	357	148	1190	101	64	133	19	22	123	344	954	49	1	96	2	1	5,453
1839	122	297	195	223	837	707	108	612	111	1538	72	21	253	120	115	314	139	1002	108	39	224	18	19	3	345	864	5	.	68	.	1	5,073
1840	156	276	160	251	843	806	104	363	100	1371	96	22	200	119	100	345	149	937	116	65	233	27	6	2	359	850	64	.	77	.	.	5,045
1841	138	289	203	266	896	790	133	490	118	1531	96	8	325	125	113	407	202	1402	124	101	84	25	28	114	370	830	260	6	68	.	.	5,697
1842	140	325	237	270	972	753	170	686	98	1707	119	12	245	100	86	387	151	1003	146	124	209	43	35	23	379	881	150	5	37	.	.	5,828
1843	131	280	188	213	767	742	167	471	96	1476	129	18	268	93	91	403	183	1057	82	69	396	40	50	8	371	946	31	1	62	1	.	5,529
1844	121	341	243	232	917	798	218	531	105	1652	124	15	247	47	92	270	177	858	145	75	269	19	23	2	327	1013	18	.	48	.	.	5,510
1845	167	380	256	336	1140	830	224	532	115	1601	156	22	311	65	70	295	190	983	123	100	199	42	49	90	360	1107	190	7	67	.	.	6,247
1846	182	369	246	348	1145	858	158	567	116	1699	155	18	329	68	114	464	209	1202	130	96	228	33	36	5	416	1020	251	5	49	.	.	6,472
1847	178	363	259	320	1160	856	160	505	166	1687	149	19	442	169	132	462	221	1455	156	356	357	33	46	78	397	1217	9	2	137	.	.	7,149
1848	180	402	247	417	1256	955	205	371	399	1930	182	31	457	304	122	410	367	1691	121	287	72	43	78	100	459	1223	100	2	78	5	.	7,727

Professor Jackson presented the following

Observations on Hydrophobia, with cases.

The number of cases of Rabies Canina, or Hydrophobia as usually named, that have occurred within the last year, have invested the disease with an increased interest and importance to the profession. From its unusual prevalence in the canine race, over a wide extent of country, it has presented, to a certain degree, the character of an epidemic in that class of animals. Accidents from the bites of rabid animals have been proportionally numerous, producing in the public, excitement, alarm, and a sense of insecurity from the domestication of the dog, whose almost human instincts have always made him the companion, protector, and friend of man, one that never deserts him in the hour of peril, or abandons him in the time of need.

It must be acknowledged that we are much in the dark as respects the pathology and therapeutics of this most formidable disease. Our knowledge of its nature, seat, and mode of treatment, is not more settled than it was when first placed on record, two thousand years ago. The uniformly fatal result that has, through all time, attended every perfectly authenticated case of communicated rabies canina, renders its curableness a matter to be questioned. Cases of reported cures are on record, but they all have some defect attaching to them, that vitiates their character. Dioscorides asserted that no one was ever cured of the disease, "Neminem sanatum fuisse;" and the same opinion has been reasserted by Liston, Moreau, Dessault, Peryrilhe, Le Roux, Blair, Hamilton, and others, who have seen and treated cases of this affection.

Our defective knowledge of the disease is in a great measure to be attributed to the limited opportunities for making it the subject of study and investigation. Numberless practitioners, in all periods, have passed a lifetime, without having met with a case of it; and of those who have encountered it, few have seen more than from one to three, or four cases at most, and those at long intervals. For the satisfactory understanding and correct explanation of any class of phenomena, a continued series of observation, experience, and experiment is indispensable; and this applies in a special manner to a disease at once complicated, obscure, and intractable, such as rabies canina, or communicated hydrophobia.

From the foregoing considerations, it has occurred to me, that the following cases of this formidable disease that have come under my own observation, and were carefully recorded at the time, would not be thought obtrusive, or without some interest to the College.

The subject of the first case was a young man who kept a grocery store in Beach or Schuylkill Front Street, in the year 1834. A month or two previously to the attack, he observed in the middle

of the day, a small dog to run into the store, and conceal itself between two barrels. In the evening, when about to close his shop, he recollected the circumstance, and intending to remove the animal, he thrust his hand between the barrels, seized it by the nape of the neck, and threw it into the street. In doing this, he received a slight bite on the hand. Nothing more was known of the dog, and there is no positive knowledge that he was rabid. So trifling was the wound, and so slight the impression made on the mind of the patient by the occurrence, that when first interrogated as to his having been bitten, when the symptoms excited some suspicions in regard to the character of the disease, he denied having suffered such an accident. No scar could be seen.

The following history of the case is extracted from my diary, in which I make a daily record of the cases that I attend. The dissection was made by Drs. Horner, Goddard, and myself, and the record of it is in Dr. Goddard's writing, taken down at the time.

Case of Hydrophobia.—*Monday, March 17th*, 1834.—David Lithgow, aged 30 years; sanguine temperament, light eyes and hair, fair complexion, large frame, well developed chest and limbs; last Monday exerted himself violently in jumping; got heated; perspired freely, as he usually does; felt sore after his exertions, particularly around the upper part of the abdomen; this painful sensation continued some days. On Saturday assisted in loading his canal boat, but did not exert himself more than common; felt, on Saturday, uneasiness in the back of the neck and shoulders, with numbness of his arms, and great pain. Dr. Beattie, who was called in, saw him on Sunday, about 10 A. M. The patient was in bed covered up with bed-clothes; the face then looked flushed, and the neck and chest of a red colour; but when the clothes were removed, the colour diminished. He was bled to ℥xx. Calomel and opium were given. While the Dr. was bleeding him he drank water without difficulty.

Soon after the Dr. left him, in attempting to swallow the medicine directed, he could not succeed, from spasms in the throat. All attempts after this to swallow fluids or solids, produced the same effects. Dr. B. saw him again in the evening, when he exhibited violent convulsive spasms of muscles of respiration, whenever he attempted to swallow. Gave him sulph. morph. gr. iv, laudanum ℥ss, in an injection thrown high up into the bowels. Dr. B. requested me to see him to-day, (Monday, 17th). Attended at 11 A. M. The patient was in bed, the perspiration flowing in streams from his face; pupils contracted; no unnatural heat of surface; tongue moist, very slightly furred; fauces of natural aspect; pulse 68, soft and round; bowels have been opened frequently; eructates flatus; no nausea; no pain or uneasiness; has no disposition to spasms, unless excited by some cause. He attempted to swallow

a piece of bread for me, but was almost suffocated in the effort. It was expelled from his mouth with violence. Water sucked up through a stomach tube caused violent spasms. The body was jerked upwards; he rose on his knees in bed, his face greatly distorted by the spasm. Opening the door, though he does not see it, causes him to cry out. The slightest motion of the air, made by waving the hand or a fan, causes convulsive sobs, as though cold water was sprinkled on his face. No other muscles but those of respiration are affected. Applied six moxas to the back of the neck, and injected far into the bowels gr. iij of sulph. morphia. 5 P. M. Symptoms more moderate; is heavy, inclined to doze; cups applied down the spine; afterwards, blister applied on the spine.

Tuesday, 18*th*.—Dr. Beattie remained with the patient all night; gave him in the night ʒj opium in injection, and early this morning ℈j more. Saw the patient at 9½ A. M. Symptoms greatly aggravated; was out of bed; manner agitated; nervous movement; profuse perspiration, which has continued from the commencement; pupils contracted; pulse smaller and feeble; skin wet and cold to the feel; tongue moist, and nearly clean; is constantly hawking and expectorating a viscid phlegm; mind is changed since yesterday; was then calm, pleasant tempered, collected, and cool; is now irritable, quick in temper, irregular in disposition; endeavours to control himself, but fails at times to do so; impatient, very desirous to drink; says, in the intervals of the spasms, he feels well, yet often suddenly takes a full, deep inspiration; appears to suffer, yet when asked to explain those feelings, becomes irritated; is highly excited by trifles.

He was positive he could swallow bread soaked in water; a large piece was given to him. Made many ineffectual efforts to bring it to his mouth. His face was contorted, and his whole frame thrown into strong muscular action in the effort, but he failed to effect it. He then was given a very small piece. After a violent effort he succeeded in getting it to his mouth; instantly he was seized with most violent spasms of the diaphragm. He had planted himself on his feet, in the attitude of a boxer, to make the effort. With great difficulty he brought his hand to his mouth, when instantly he was jerked backward several feet, and nearly fell. He was tossed about the room in various directions, until he fell on a low bed in violent strangling spasms. The paroxysm continued several minutes. The sound he makes, apparently a combination of coughing and hawking, might easily be compared to barking. An enema of camphor ʒj, in an emulsion, was administered. Saw him again at 12½; the spasms had continued to increase in frequency, and augment in force; they now come on without exciting cause. In one of great violence, which had continued some minutes, he had fallen on the bed insensible, and in four or five

minutes after, breathed his last. I entered the room just at the close of the paroxysm; the face was deep blue; the muscles in complete relaxation. He died evidently from asphyxia.

Autopsy of David Lithgow, ætat, 30, March 19th, 1834; 22 hours after death.—Body natural, muscles tense, became more so during the examination; joints rigid; skin sallow; face much changed in expression; some cadaverous settling of blood in the back; emphysema of neck, chest and right arm. No evidence of priapism.

Thorax.—Muscles of a very dark hue, becoming red from exposure to the air. Odour of ether strong and distinct, on cutting the pectoral muscles before the abdomen was opened; emphysema in anterior medastinum. *Heart.*—Large coagulum in both ventricles; much of the blood, however, being fluid, both in the heart and veins; blood black; not becoming red on exposure; substance of heart as firm as usual; lining membrane and valves healthy; lining membrane of aorta and vena cava healthy. *Lungs.*—Healthy externally; rows of globules of air in superficial veins; those of the lower part being fully distended with it. Parenchyma of lungs emphysematous throughout. Air-cells and bronchi healthy; rather dry.

Throat.—Palate and velum healthy; fauces and glottis covered with a thick tenacious mucus. A broad belt of a deep purple hue surrounded the pharynx, terminating below in a well-defined line, on a level with the inferior edge of the cricoid cartilage; above, its termination was irregular, and merged into the colour of the rest of the pharynx. It was about an inch and a quarter wide.

Larynx.—Lower part of epiglottis scarlet, deeper at the sides; mucous membrane of larynx deep red; mucous membrane of trachea and bronchi same as larynx; small quantity of mucus in trachea, thick and puruloid. The trunk of the par vagum was examined, and found healthy.

Abdomen.—Stomach and intestines distended with gas; stomach contained about a half a pint of thick fluid, somewhat resembling black vomit; mucous coat of stomach smooth; not softened. Above the cardiac orifice, patches of ecchymosis and stellated injection; the latter in larger quantities along greater curvature; a large patch of it about centre of larger curvature; dotted injection interspersed; colour of injection brightened on exposure to the air. *Liver* healthy; gall-bladder filled with bile of natural colour and consistence. *Intestines.*—Mucous coat healthy; contained greenish fœces of good consistence. *Bladder* healthy, and distended with urine.

Head.—Adhesion between dura mater and skull cap but slight; capillaries of dura mater injected; vascular trunks filled with air. *Pia mater* congested: large veins filled with air, principally at the base of the brain; arteries of base entirely empty; arachnoid membrane somewhat dry. *Medulla oblongata* white, firm, and drier

than natural; cineritious portion pale; large dots of blood in its substance; on cutting it open longitudinally from behind, numerous transverse fissures filled with blood were seen. *Pons Varolii* white and firm; numerous red dots; cineritious portion paler than natural, but not so pale as that of the medulla oblongata. Cerebrum appeared healthy. The cineritious portion of the natural hue, and the medullary containing the usual number of red dots. Plexus choroides and vena galeni full of air. Thalami and copora striata healthy; ʒjss of bloody serum in ventricles. Nervous trunks from base healthy. Spine not examined.

P. B. Goddard.

The second case I witnessed daily during its progress, but did not attend: it was that of Cornelius Weeks, who died in the Pennsylvania Hospital this fall. A full account of this case was kept by Doctor Sargeant, together with the post-mortem appearances. A statement of them has already been made to the College by Doctor Pepper.

I allude to it now for the purpose of pointing out the different modes of dying in this case, and that of Lithgow.

In the case of Cornelius Weeks, the nervous spasms were very violent the first forty-eight hours after his admission, but from the effects of chloroform internally as a potion, or from the natural course of the disease, they moderated very considerably. Throughout the duration of the case, the potion, with two tablespoonsful of water or broth were taken, though with strong efforts, at regular intervals. He sank away gradually in a state of extreme exhaustion, presenting the general aspect and physiognomy of malignant fevers. He died apparently from the direct influence of the rabid virus on the blood and vital forces.

Lithgow, on the contrary, perished suddenly, in the midst of a violent spasmodic paroxysm, causing asphyxia.

From the post-mortem appearances, I have always looked on his death as having been the result of the introduction of air into the blood-vessels, interrupting suddenly the circulation. This may have been accomplished by the spasm forcibly compressing the lungs distended with air, which could not escape from the firm closure of the glottis. Bichat, in his work "*Sur la vie et la mort*," relates experiments he performed, that prove, it appears to me, the probability of this occurrence. It was this experiment of Bichat's that, at the time of the dissection, suggested the explanation I have given.

Bichat states that, if a stop-cock be adapted to the trachea of a dog, and a quantity of air somewhat greater than an ordinary inspiration, be pushed into the lungs with a syringe, and an artery be then opened in the leg or foot, there will escape frothy blood from the bubbles of air it contains; and if hydrogen be employed, and

a lighted candle be held near, they will inflame, showing that the hydrogen unchanged had passed into the circulation.—pp. 354—55.

The third case is that of Mrs. Burrows, which has excited some curiosity and interest from the recovery of the patient. This very uncommon result is well calculated to cast a doubt on the true nature of the disease, and suggest suspicions whether it was a true case of rabies canina. On this account, I shall lay before the College a somewhat minute and detailed statement of all the circumstances of the case, and leave it with them to decide the question.

Mrs. Burrows is about 30 years of age, rather of full embonpoint, a brunette, with black hair and dark eyes. She has a physically nervous temperament, but possesses a determined character, great resolution, and a flow of spirits that rarely fails. When a girl she was subject to nervous attacks and spasms. The last severe one, her father and herself informed me, occurred ten years since. She has been married seven years, and has had four children; one she lost last summer; the youngest was nine weeks old at the period of her attack.

Since her marriage she has had but one nervous spasm, which took place four years since. It was brought on by the painful attempts to remove a pin she had accidentally swallowed, and which was sticking in the fauces near the top of the larynx. This was the last nervous spasm she had suffered prior to the invasion of the disease. Doctor Horner saw her at the time, with her brother Doctor Cooper, at present surgeon in the U. S. Army.

In the month of July last, then residing in Cooper Street, Camden, she was at the gate door with her child, a little girl aged — years. She saw two dogs running up the street; she stepped into the yard alongside the house, leaving the child at the door, She soon after was alarmed by the cries of the child, and the noise of a dog, and running to the door found one of the dogs had attacked her child. She flew to its rescue, and in saving it, received a bite on the inside of the wrist of the right hand. Two punctured wounds were made by the fangs of the dog, about an inch apart. They were slight, and she did not mention the circumstance to her husband, or pay any attention to them; they healed in a day or two. The dog disappeared, and nothing more has been heard of him.

No inconvenience was experienced from the bites until the commencement of October, when the slight cicatrices made became red, slightly tumefied, and painful. In some days after, one festered, which she opened; it discharged a few drops of greenish matter, healed, and gave no further trouble. The other remained hard and painful, and pains extended from it up the arm, to the shoulder. In a few days the whole arm became painful and swollen, a small tumour formed on the inner side of the arm about two inches below the axilla. It did not gather.

During this period, as she occasionally complained of her arm,

her friends would inquire of her what ailed it; to which she frequently replied jokingly, that she had heard of a milk-leg, and she supposed her's must be a milk-arm. This is mentioned to show that her mind was not occupied with the idea of the bites.

On Friday, 27th October, Mrs. Burrows, after coming down stairs in the morning, drank a glass of cold water, as is her custom. She was surprised by a sudden shuddering sensation, but as it passed off, she thought no more of it. In the course of the day she crossed over to the city to visit her parents. When on the river, particularly on her return, she felt a singular dread and uneasiness at the sight of the water she could not understand. It left her when she landed. In the evening, feeling unwell, she resolved to bathe her feet before going to bed. When the water was brought, she attempted to try with her hand its temperature. She was instantly seized with a violent shuddering, and sense of dread. Her husband, who was present, laughed at her, and asked whether she had not been bitten by a mad dog. She was fearful of giving him uneasiness, and did not mention the bite she had received in July. Soon after, in attempting to take a drink of water, she was seized with violent spasms of the throat, and a sense of suffocation to an alarming degree. Dr. Fisler, of Camden, who was her physician, was sent for, and remained with her the greater part of the night, as the spasms continued to recur at intervals. She was treated with acetat. morph. gr. $\frac{1}{4}$, every two hours. Dr. Cooper, of Camden, also saw her. I received a message, requesting my attendance, and visited her at 2 P. M. While in the parlour down stairs, I heard a peculiar sound that bore some resemblance to a dog's bark. It was remarked that the patient was then in a spasm, as in them she made that noise. When I reached the chamber, the spasm had ceased. Mrs. B. was in bed, in full possession of her senses, conversed with me, without hesitation or difficulty, in a pleasant manner. She had no fever; pulse 68 to 70; skin cool; she complained of fullness of the head, which she attributed to the pills of acetat. morph. The adnata were slightly injected; she complained of pain in the neck, and in the throat; fauces appeared dry, and voice hoarse. Right arm swollen, and exceedingly sensitive; epigastrium sensitive to pressure, but it did not cause spasms, or disturb her breathing. Fanning, or waving the hand did not produce spasms, or unpleasant effects. Water poured from a vessel, though unseen, and no previous intimation given of the intention, Dr. Fisler informed me, had caused paroxysms in the course of the morning. I requested her to drink some water, with which she complied immediately. She took a mouthful, but in trying to swallow, a frightful spasm was induced, limited, as it appeared to me, to the larynx and fauces; she appeared suffocating. The diaphragm and abdominal muscles did not participate in it, as I kept my hand on the abdomen to ascertain the fact. She appeared to me for a short time to be unconscious, the eyes rolled upwards,

but she declared she retained her senses perfectly. It was a violent struggle for breath, but not general convulsion or spasms. There was no salivation or mucus collected in the mouth.

At this visit I expressed to my colleagues, Drs. Fisler and Cooper, that although the symptoms were somewhat suspicious, yet, taking everything into consideration, I was disposed to look on the affection as a simple nervous one, and probably hysterical.

The following course was agreed on. Sinapism to the epigastrium; cups on back of neck; sinapisms down the spine; enemata of assafœtida, ʒiij suspended in water, and chloroform, ʒjss in an emulsion, every hour if required.

Sunday morning, October 29th.—Patient apparently better, very cheerful, calm, collected in manner, and gay in conversation. Spasms had continued yesterday until the evening, when they had ceased, and had not again returned; passed a quiet night, but did not sleep sound. She had drunk water freely several times. Some difficulty had been experienced in swallowing it, but no spasms were excited. Head more comfortable since the pills were omitted. Throat feels sore, but less painful than yesterday. Skin, pulse, and tongue natural. Sensibility entirely lost in the skin of the right arm, below the deltoid muscle; does not feel pinching, or touching. She asked me to stick it with my knife, to ascertain whether she could feel that. There is notwithstanding, deep-seated pain in the course of the nerves. There are also slight spasmodic twitchings of the muscles of the arm. The whole abdomen feels sore and uncomfortable; pressing the epigastrium gave most uncomfortable sensations, and disturbed the respiration, rendering it irregular, but did not cause spasm. In the night ejected some blood by vomiting, which did not coagulate. Bowels have not been opened.

At this visit my first impressions were rather confirmed than weakened. It was determined to continue the same plan of treatment, and to add the following, with a view of acting on the bowels: —Mass. hydrarg., ℈j; syr. rhei, ʒj. A teaspoonful every hour. Enema of emulsion of assafœtida, if spasms continue.

The first dose was given at 12 M. The attempt to swallow it brought on violent spasms of larynx and chest, threatening suffocation.

From this time, the spasms occurred, with short intermissions, spontaneously, notwithstanding the assafœtida injections, the sinapisms to abdomen, and other means resorted to by Drs. Fisler and Cooper.

I saw her at 5 P. M. There was an intermission when I entered the room. She expressed herself as suffering great bodily distress. The right arm was in constant agitation from slight spasms; the right shoulder painful; no sensibility in the forearm. The cicatrix was tumid, red, and sensitive to pressure, though the hand and arm were insensible. She complained of acute pain in both hams. Press-

ing on the groins, on the calves of the legs, in the armpits, as well as under the knees, excited acute pain. Has sense of distress in throat, chest, heart, and abdomen. Notwithstanding this state of suffering, talks cheerfully, even answered in the same spirit to some jocose observations, and expressed her full confidence in her attendant's skill. Without her observing it, I placed my hand near the back of the head, some inches from it, and gently waved it. She was on the instant seized with shuddering, followed by strangling spasms of the larynx, fauces and of the chest, arresting respiration, followed immediately by spasms of the trunk, in which she was tossed about the bed, gnashing her teeth, and plunging her head into the pillows, and bed-clothes, biting and tearing them.

Chloroform was sent for. It was obtained from an apothecary in the neighbourhood. When procured, as no sponge was at hand, I soaked a rag with it, and seizing her by the back of the neck, attempted to hold it near her mouth. The inhalation was imperfect, as the spasms kept the patient in constant motion, and as she was making plunging efforts to seize the rag with her teeth, some caution was required to avoid being bitten.

A sponge was then procured, and the inhalation was more effectually performed; as the effect took place, and the spasms were mitigated, the patient assisted herself to hold the sponge to her mouth. In a few minutes the full effect was produced, and she fell perfectly insensible, every muscle in perfect relaxation, and the respiration easy and natural. An enema was now administered, consisting of Pulv. ipecac. composit. ℈ij; chloroform ʒij, in starch water.

The medical attendants retired to another room, where the excision of the cicatrix was talked over and determined on.

After returning to the room, while sitting by the bed-side, she suddenly addressed me, saying, "Dr. Jackson, what is my disease?" —"Nervous spasms," I answered.—"I know that, but what causes these spasms?"—"Many causes of various natures may give rise to them."—"That is true, but is not that the cause," putting her left forefinger on the cicatrix on the right wrist, "Is it not that?"— "Most probably it is."—"Why not, then, cut it out? why not, if necessary, take off my arm? I can bear it, I have nerve for anything."—"Cutting it out is precisely what we have concluded, just now, to do, but it so happens, we have no instrument with us."— "Well, take your penknife, I won't flinch." Dr. Cooper, who had stepped out, returned with a venerable scalpel that had evidently not been in service for a long time, and a tenaculum. I hooked up the cicatrix, and with some effort succeeded in excising the skin surrounding the cicatrix. This rude surgery was borne well. She then said, "Do you not think it would be better to apply caustic to the cut?"—"A good suggestion," I replied, and immediately applied

caustic liberally over the whole surface. A poultice of pulv. ulm. rubr. was directed to be applied.

The excision of the cicatrix was hardly completed, when a spasm came on. The chloroform was immediately administered with the sponge, its full effects were induced, and she again became insensible. She was some time in this state; as she was recovering from it, she raised herself slowly on her knees, and with her eyes intently gazing, and her arms stretched upwards, she addressed the vision of her lately lost child. When she had entirely recovered, she related the vision she had seen.

It was agreed that the chloroform should be given as soon as a paroxysm was observed coming on, that in the course of the night another enema similar to the last should be administered, if the spasms continued to recur, and calomel gr. xx should be given, to relieve the bowels.

Monday, October 30*th.*—At my visit this morning found her better, calm, and cheerful; pulse 96; temperature of skin natural. Tongue moist, slightly coated. I was informed that spasms had continued to recur from the time I left her until midnight. Many were exceedingly violent. The chloroform had been timidly administered. As the spasms appeared to yield, the chloroform was withdrawn, from an apprehension of some ill consequences from using it so constantly. The patient, as soon as the spasms would permit her to articulate, would call for more and urge its use. After 12 o'clock, the spasms were subdued so much, that instead of being instantaneous, she had a warning of their approach, when a few inhalations arrested their further development.

Was sick in the night, and vomited more blood, which remained liquid.

Throat feels sore, voice is hoarse; abdomen uncomfortable, and slight pressure distressing; cannot bear the weight of the bed-clothes on it. Pressure on the calves, under the knees, groins, and arms, very painful. Bowels have not been moved. In the confusion from the conflict with the spasms, the calomel directed had not been given. No feeling in the right arm. It is paralyzed, but is often affected with tremulous spasms.

Mrs. B—— is naturally nearsighted. Her father assured me she had been so from early youth. She was unable to distinguish the features of a person standing at the foot of the bed. Her sight is now quite acute. The shutters are bowed, and the curtains drawn, as the light is offensive, yet she sees a pin sticking in the paper on the opposite wall of the chamber, distant at least twelve feet.

The hearing is equally acute, though her hearing is rather dull in health. Yesterday, when the medical attendants were in the parlour beneath the chamber, the stairway opening into a small entry communicating with the bed-room, she heard the conversation below, and repeated parts of it to those with her at the time.

She remarked to me that her throat felt so uncomfortable and dry, that she wished it could be greased inside with a feather. I suggested to her to take some oil of butter, to which she assented. It was prepared and brought to her in a silver spoon; but as soon as the glitter of the metal caught her eye, she was taken with a strong shuddering, and spasmodic action of the throat and face. The oil was then placed in a small toy-cup; she received it in the mouth without difficulty, but in attempting to swallow it, a spasm came on. I called to her to spit it out; but she made another effort, when most of it was expelled, and a strong spasm was induced. The chloroform on a sponge was brought under her mouth, a few inhalations produced partial insensibility and relaxation, and the paroxysm ceased.

Calomel (gr. xvi) was given. Pills are swallowed without difficulty, and crackers can be chewed and swallowed.

6 P. M. No complete paroxysm since morning; several times spasms were threatened, but arrested immediately by chloroform inhaled. This afternoon, her father seeing a fly about to light on her face, waved his hand to drive it away. This excited a spasm, checked, however, by chloroform. The looking-glass, and other shining objects in the room, were covered over. The glitter distressed her. The windows were also kept down; she could not bear the air to blow upon her.

I inquired of her what had been, and were, her feelings; she said it was difficult to describe them, but they were more like a dread of something, she knew not what, than any other feeling. Her mind is tranquil; she converses cheerfully; being a Catholic, she has observed the religious obligations of her faith, and is fully prepared for any event.

The wound is discharging freely a thin serous fluid. The arm feels, she says, as though sensation was returning in it.

Bowels have not been opened, or urine passed. Directed a purgative enema, and after evacuations, pulv. ipecac. comp. ʒss, in injection. Chloroform *pro re nata.*

Tuesday, 31*st.*—Had passed a comfortable night; bowels and bladder had both been relieved last evening, and again this morning; had taken the Dover's powder injection. Twice spasms had been excited in the evening; once by a young girl coming into the room, and approaching the bed with a glass of water in her hand; the other, by an attendant, without thinking of it, bringing a basin of water into the room; each time chloroform arrested the spasms.

The wound discharges freely; suppuration has commenced; sensibility has returned to the arm; pressure on the calves, beneath the knees, in the groins, and armpits, much less painful.

She took last evening, some ice-cream, and repeated it this morning; she has taken also some milk this morning. The uneasiness of the

throat greatly abated; epigastrium less sensitive; bears pressure without the same distress. She informed me this morning, that during the violence of the attacks, a feeling appeared to start from the cicatrix, ascend the arm, pass down the chest, and strike into the stomach; but that now the feeling appears reversed, and seems to pass from the stomach into the arm, and descends into the wound.

The chloroform is used whenever there are threats of spasms from uneasy sensations. Repeat the enema of Dover's powder.

I inquired of her whether there was any difference between the attacks she had suffered during the last few days, and those I had understood she was formerly subject to. She said there was; they were wholly dissimilar. I asked in what respect. There is this difference, she remarked; in the former attacks I was generally unconscious; I knew no one about me, what was said, or what was doing. When I came to myself, I did not know that anything had happened to me. In these last, I had my consciousness entire. I knew every one, heard all that was said, and I knew all that was doing. There is also this difference. In my old attacks, bandages were tied tight around my stomach, and pressure made, which always gave me relief in the milder attacks; in those I have lately experienced, I could not bear the slightest pressure on the stomach; the bed-clothes oppressed me.

Nov. 1*st.*—Was restless in the night. The hand, wound and arm more painful; the edges of the wound pale and unhealthy; discharge thin and sanious. Directed it to be dressed with ungt. resinæ flav. Abdomen and epigastrium are no longer sensitive or the seat of uncomfortable sensations; bowels relieved. This morning has taken ice-cream and milk. She has swallowed three or four raw oysters; complains of thirst, and wishes to make a trial of drinking water. Some was brought to her, and she took a large draught. A slight tremor only was produced, followed by a sense of glow, and suffusion of the face; continue milk, ice-cream, and raw oysters. At night the usual enema of Dover's powder. Chloroform has been discontinued.

4*th.*—Has continued free from spasms; arm been painful. To-day was brought in a carriage from Camden, to her father's residence in Market Street above Ninth. Saw her after her arrival. She was in sitting-room down stairs, resting herself. At 9 P. M. I was sent for to see her. In carrying her up stairs to her chamber she had fainted. She continued from fifteen to twenty minutes in that state. She revived soon after I entered the room, when, as usual, she commenced with me a cheerful conversation.

She informed me that she had lost her milk during her illness, and will be compelled to get a nurse.

5*th.*—Had rested well; feels better though feeble; arm less painful.

23*rd.*—Have not seen Mrs. Burrows until this evening, at 10

P. M., when her brother, Doctor Cooper, of the U. S. Army, urged me to visit her immediately.

Since last report her general health has been good. The arm has remained painful; the pain appears to be confined to the ulnar nerve in the forearm, but the whole shoulder is painful. On the 17th, Doctor Fisler saw her, and as she was that day feeling very uncomfortable, with increased pain of the arm, and the wound was nearly healed, he again applied caustic potash. The slough was thrown off to-day. The pain of the arm had been increasing for the last two days, and finally, this evening, strong spasms of the arm came on, recurring, in paroxysms, every ten or twelve minutes, accompanied with sense of numbness. Severe pain existed also in the nape of the neck, extending down the back to the last dorsal vertebra.

I directed a warm poultice with ten grains of powdered opium to be applied to the wound. A pill containing sulph. morph. gr. $\frac{1}{4}$, was ordered to be given every two hours, and a dozen dry cups to be applied along the spine on the neck and back. One spot opposite the third dorsal vertebra was exceedingly sensitive; when a cup was applied to it the right arm was thrown into violent spasms, the forearm was rigidly flexed, and the hand clenched. It continued in this state until the cup was removed.

24*th*.—The pain and spasms of the arm continued nearly all night. Towards morning became less, and the patient got some sleep.

No spasms of the arm to-day; the course of the nerve is yet tender; a little below the axilla is very sensitive; wound discharging freely; a liniment of extr. of stramonium, aconite, opium, with cerate and oil, was directed to be rubbed on the arm, and the pill to be continued, at intervals of four to six hours.

25*th*.—Rested well last night; arm less sensitive; wound looks healthy; omit the pills; continue the liniment.

From this period Mrs. Burrows continued to improve in health. Her milk returned, The wound cicatrized in the second week of December, the pain ceased in the forearm, but the shoulder and axilla continued sensitive, and occasionally painful, until the commencement of January. To the present time she continues to enjoy the most perfect health.

In the three cases of Lithgow, Weeks, and Mrs. Burrows, the symptoms of hydrophobia were strongly manifested. Weeks' case was undoubted rabies canina. I draw a distinction between them. Hydrophobia is a nervous affection, more frequently a nervous symptom, complicating or accompanying other diseases. It may be regarded as nearly pathognomonic of rabies from its almost uniform attendance, in a greater or less degree, on it, and hence is often confounded with it. Hydrophobia may exist, though rarely, as a

simple nervous disease; it most commonly is manifested as an hysterical symptom, when it does not belong to rabies.

Lithgow died from hydrophobic spasms, by which asphyxia was induced.

Weeks did not die in spasms, or from proper hydrophobia disorder, but in a state of complete adynamia and ataxia, produced by rabific poisoning. In most of the fatal cases of reported rabies, death appears to have ensued from asphyxia brought on by spasms of the respiratory apparatus. Doctor Marshall Hall has lately stated that death always in hydrophobia occurs in this way. Dr. Physick appears to have entertained the same opinion, as he recommended tracheotomy to be performed in all cases; and the same advice has been reiterated by European practitioners.

In the case reported by Doctor E. Hartshorne, (*American Journ. Med. Sci.*, Oct. 1848, p. 339,) the hydrophobic spasms ceased before death, and the patient was able to swallow liquids. In that case, as in Weeks', death resulted from the deadly influence of some virus infecting the blood, and destroying its vital capabilities.

In Lithgow the hydrophobic spasms were more violent than in Weeks; and in Mrs. Burrows they were equally strong and distressing, until checked by the chloroform inhalation.

Mrs. Burrows' case I regard as one of hydrophobia; was it rabies? That cannot be asserted in the absence of all information respecting the rabidness of the dog by which she was bitten. That it was not hysteria, I feel equally confident. I have had to manage numerous cases of that affection, in private and public practice, but never have I met with a case in which so few genuine hysterical symptoms were present, as in that of Mrs. Burrows, or which exhibited any approach to the train of phenomena that were present in this latter case. That the hydrophobic symptoms had their origin in the cicatrix of the bite, I cannot doubt. There was a degree of painful irritation there, more than sufficient to account for the whole train of nervous disorder and symptoms she suffered.

I have seen two fatal cases of tetanus produced by irritating causes incomparably less active. One was an apprentice of Mr. William Fry. He had received a slight scratch in his thigh from the jagged end of a board. Doctor Horner and myself examined the body. The wound had been healed some time. We made a most careful search for some foreign body in the skin, and when about to abandon it, accidentally, I perceived a slight hardness in the fascia lata, which was to all appearances perfectly healthy. On splitting it open, there was found a small splinter about one-eighth of an inch in length, and a line in breadth. There was no inflammation, the lad had suffered no pain, no local sign of any injury or disturbance was to be detected; yet that injury and the presence of that trifling foreign body, had been sufficient to cause a fatal disease of the nervous system.

In the other case, a small piece of leather from the shoe, had been forced beneath the nail of the great toe, by a projecting nail, against which it had been struck. No inflammation, or swelling, or suppuration of the toe had taken place, but death ensued from tetanic spasms.

The excision of the cicatrix in Mrs. Burrows' case, and the establishment of a free discharge and suppuration, most probably contributed, by removing the exciting cause of the spasms, to the recovery of the patient.

The inhalation of the chloroform unquestionably produced the most beneficial effects in arresting the spasms, and preventing their development. But it cannot be relied on as a curative agent in true hydrophobia or rabies canina. It is an important aid by holding the paroxysms in check, and may prevent death from their violence, or their long duration.

In the above three cases, the most striking phenomena, was the exalted and perverted action of the excito-motory function of the medulla-oblongata (hyperdynamia and ataxia) connected with respiration and deglutition. In all the well-reported cases of rabies canina and communicated hydrophobia, the same phenomena have prevailed. Impressions and excitement communicated to it through the eye, as shining, or glittering, or strong light ; through the ear, as sounds of water, sometimes of wind ; from the face, as the movement of air over it ; from the mouth and fauces, as the touch of water and sometimes of solids, or the efforts to swallow them, throw the respiratory apparatus and the muscles of the throat, into disordered, irregular, convulsive, or spasmodic action. This often is so violent as to produce death from asphyxia.

In all cases of rabies the medulla oblongata, the exciting and governing central nervous organ of the involuntary and automatic muscular actions, is in the above pathological state, but varying as to its degree, in different individuals, during the first and second stages of the disease. Should the patient survive the two first stages, and pass into the third, a new train of phenomena is then established. With the ataxia of the early periods is combined adynamia, from the breaking down and exhaustion of nerve force ; muscular power rapidly fails, and the vital functions depending on muscular action and physical laws for their maintenance, as respiration and circulation, speedily are extinguished.

Before concluding this communication, already longer than I had intended, there is one remark I wish to make. A case of hydrophobia produces much excitement and interest. The patient is most generally surrounded by curious visitors, professional as well as others. From the excited and perverted state of the nervous functions, the effect is injurious. Spasms are brought on, and aggravated by the impressions made on the senses, and by the annoyances he experiences. I was much struck with it in Lithgow's case. From

morning to night his room was crowded by people of the neighbourhood, and professional gentlemen calling to witness a case of so rare an occurrence. Weeks was much distressed and annoyed by the numbers of the gentlemen of the profession that at first crowded into his room, but subsequently this was corrected. He remained alone, or with a single attendant, until the time for administering his remedies, or the period for visiting him by the medical prescribers. I asked him whether he had spasms when entirely alone; he told me he had not.

None were permitted to see Mrs. Burrows but members of her family who were her nurses, and her medical attendants. I am convinced that a patient has a better chance of recovery, certainly has much fewer attacks of spasms, and far less suffering, when kept in as quiet a state as possible.

The College proceeded to select, by ballot, ten Delegates to represent it in the National Medical Association, at its Session of May, 1849.

When the following were elected.

George B. Wood,	George W. Norris,	Samuel Jackson,
Francis West,	Isaac Hays,	George Fox,
Alfred Stillé,	D. Francis Condie,	Gouverneur Emerson,
	Henry Bond,	

Stated Meeting, March 6th, 1849.

Dr. Wood, President, in the chair.

Present, twenty-two members.

Samuel Lewis, M. D., and Justus Dunott, M. D., were duly admitted Fellows of the College.

Dr. Parrish, on behalf of Charles A. Poulson, Esq. chairman of a special committee appointed by the City Councils, to inquire if there be any manuscripts relating to the city, worthy of being printed, &c., presented a copy of The Minutes of the Proceedings of the Committee, appointed on the 14th of September, 1793, by the Citizens of Philadelphia, the Northern Liberties, and the District of Southwark, to attend to, and alleviate the sufferings of those afflicted with the Malignant Fever prevalent in the City and its vicinity. With an Appendix; printed by order of Councils, upon the recommendation of said Committee.

Dr. Parrish, in presenting the volume, remarked, that it constituted a most valuable document in reference to the past history of our City. Of the committee appointed, during the prevalence of a most malignant disease, to alleviate, in conjunction with the Overseers of the Poor, the sufferings of those attacked by the pestilence, consisting of twenty-one members, four fell victims to the prevalent disease; and but one of the committee, the venerable Thomas Wistar, still survives.

In addition to its general interest, as a memorial of the heroic self-devotion of some of the most respectable citizens of Philadelphia, during a season of the direst calamity, the volume is, also, especially interesting to the physician, by the reports it contains, from Drs. Physick, Leib, Cathrall, Annan, Duffield, Deveze, and others, with the names of the sick who were admitted, died, or were discharged, at the Hospital, Bush Hill.

On motion, it was Resolved that the thanks of the College be presented to Charles A. Poulson, Esq., Chairman of a Committee of Councils, for the volume presented by him to the Library.

Dr. Parrish also presented to the Library, The Report of a joint Special Committee of the Select and Common Councils of the City of Philadelphia, appointed on the 7th of December, 1848, to whom were referred certain queries, contained in a circular letter from the American Medical Association, on the subject of Public Hygiene.

Dr. West presented the Report of the Library Committee, as follows:

The Library Committee beg leave to report, that although no extraordinary additions have been made to the Library, within the past year, it has, nevertheless, continued steadily to increase. The number and value of the books it now comprises entitle it, it is believed, to far more attention than is bestowed upon it by the Fellows generally. In order to render the periodicals, and other works belonging to the Library, accessible, at all times, to those desirous of consulting them, the committee took occasion, in their last report, to make some suggestions, which were adopted by the College. It was recommended, that the keys of the Library should be so placed as to be within the reach of the Fellows, whenever they should desire to use them, with the distinct prohibition, however, conspicuously displayed, that no work of any kind should be removed from the chamber, except with the knowledge of the Librarian; it being understood, that the periodicals were in no case to be taken from the chamber. The committee take this occasion to recall the attention of the Fellows to this prohibition; without its strict observance it will be impossible for them to become responsible for the safe-keeping of the books and pamphlets belonging to the College. The

committee would here repeat a remark made by them in their last report, namely, that the periodicals are not directly received by them, but by the Publishing Committee, to whom they are sent, in exchange for the Summary of the Transactions of the College, and by them are placed upon the table, for the use of the Fellows. The Library Committee have, consequently, no original cognizance of their receipt, and when they discover, as, they regret to say, they always have, on attempting to collect the periodicals into volumes for binding, many of them missing, they are unable to say whether the missing numbers have been received by the College, or not, or whether, after their due receipt, they have been carried away by some of the Fellows, for more attentive perusal at home, with the positive intention at the time, of punctually and promptly returning them to the table. Your committee bring this subject again to the notice of the College, for the purpose of, at least, exonerating themselves from any apparent delinquency, as well as with the hope, that wherever the fault lies, it may in future be corrected.

An entire set of each of the various periodicals, received by the College, would be a very desirable possession, and they trust that the Fellows will lend their aid to prevent the sets from being broken.

The committee, in addition to the list of missing numbers of the Journals given in their last report, annex the following:

Several numbers of the British and American Journal, for 1848; the May number for 1848 of the Southern Medical and Surgical Journal; the November number, 1848, of the Charleston Journal; the January and June numbers, 1848, of the Western Journal; the Western Lancet is very deficient for the early part of 1848.

No number of the Philadelphia Journal of Pharmacy has been received since the second number for 1848. No number of the *Medical News* has been received since that for June, 1848, nor of the *American Journal of the Medical Sciences*, since that for April, 1848. No number of the *American Journal of Insanity* has been received since January, 1848. The *New York Annalist* is very deficient. The Medical Examiner of this city, comes now regularly to hand.

Dr. Bond read the following:

Account of two cases of Retroversion of the Uterus, with a Description of a New Instrument for its Restoration, and some observation on the displacement of the organ.

It is not my purpose to offer a dissertation to the College this evening, but to relate two cases, and to touch very cursorily upon some interesting topics, with the view of eliciting facts and opinions from the Fellows, who are more competent than myself to give instruction.

Case I.—Mrs. ———, aged about 31, of a feeble constitution, nervous temperament, with a very marked curvature of the dorsal spine, was confined with her second child, Sept. 29, at 8 P. M. Two hours afterwards I was sent for, and found her fainty, with a feeble pulse, produced partly by a too copious lochial discharge, although it was not more copious than is usual with many women, and partly by nervous disturbance. She was soon relieved, and got along very well, the condition of the bowels, the urination and lactation all being favourable.

Oct. 5th. When I called this morning, I learned that the patient had passed a very uncomfortable night, almost wholly deprived of sleep; that she got up and sat in a chair yesterday afternoon for the first time; that while up, in attempting to reach something at a little distance, by leaning, and twisting towards one side, she felt that she had strained or injured herself. This was the commencement of her distress. She had great uneasiness in the uterine and inguinal regions, attended with a strong sensation of bearing down, especially when she urinated, which was done slowly, with pain and difficulty, attended sometimes with faintishness. She had no febrile symptoms, no flatulence or fulness in the region of the bladder; but the os uteri was soft and relaxed, situated high up, behind the crest of the pubis, and the fundus sunk down between the vagina and rectum, so low as to rest on the perineum, and so large, apparently, as to occupy almost the whole cavity of the pelvis. I had no catheter with me; but being satisfied there was no considerable accumulation of urine, I immediately attempted to replace the uterus by the usual manual operation, with the patient placed in the most favourable position, but without success. Although my efforts at the time gave her some pain, and I seemed to myself to have effected little or nothing as to the position of the uterus; to the patient it seemed otherwise, for she experienced a decided mitigation of the distress she had suffered since yesterday.

I visited her again in the afternoon, and found her comparatively easy. She had passed, since my morning visit, about half a pint of urine, which came more freely than it did previous to my first visit, but not without some distress and faintishness. A catheter was introduced, which passed up behind, and parallel to, the symphysis pubis, and scarcely any urine was found in the bladder. At this visit I did not renew my efforts at replacement, but directed the patient to make full trial of the effect of position, that is, a prolonged resting upon the knees and elbows, or, if she could do it, upon the upper part of the chest; and to take an opiate in the evening, if necessary. Soon after I left, she followed my directions resolutely. She placed herself upon her knees and upper part of the chest and remained in that position for an hour; was sensibly relieved thereby, and had a pretty good night's sleep without the opiate. She had some difficulty in urinating in the night.

6th, A. M. She had tried the position again this morning before my visit, and I found her so comfortable that I did not think it necessary to use the catheter, or make an examination. She passed urine freely before my visit, and did not feel as if there were any more to come away. At my afternoon visit, as she had passed but little urine, and that with some uneasy sensations, the catheter was used, and very little water found. She had flooded considerably since my last visit. Upon examination I found that the large tumour between the vagina and rectum was entirely gone; there was entire relief from all the distressing symptoms with which she had been attacked forty hours previously. It is probable that the uterus returned to its normal position this morning while she was in the prescribed posture, and that this replacement allowed the uterus to be evacuated more completely, causing the increased discharge before mentioned. As the patient has some flatulence to-day, I directed an enema containing ol. ricini and ol. terebinth.

7th. No symptoms of retroversion, and no indications for the use of the catheter. As the enema prescribed yesterday had not operated as was designed, a copious injection (a quart) of linseed tea was directed, which operated very favourably. As the vaginal discharge is excessive and somewhat offensive to-day, injections of infusion of chamomile and sulph. aluminis were prescribed, with the most satisfactory effect. The patient was also directed, if there should be any symptoms of a recurrence of the retroversion, any sense of weight and bearing down, or dragging pains in the groins, to recur immediately to the position already employed. She had no recurrence of such symptoms, but a good recovery. She maintained the recumbent position longer than usual after confinement; and before she began to sit up had an abdominal supporter provided, of domestic manufacture, which she wore a very few weeks.

Case II.—The following case led to the contrivance of the instrument which I offer to the inspection of the College this evening.

Mrs. ——, aged 37, has had four children, the youngest of whom is aged about 11 years. She has, subsequently, had repeated abortions, but in each case originating in causes independent of any defect in her health or constitution. For several years past, her menstrual periods have recurred regularly every three weeks, and they usually continue seven or eight days, so that she is menstruous one-third of the time; yet not one woman in five hundred has been favoured with such uninterrupted good health, and such constitutional vigour. About the end of last August, in attempting to lift a heavy body, while in a stooping position, she sustained some injury, as she said, "felt something give way," in her left side, or iliac region. She continued to have an unusual sensation in that side, but it was not one that gave much distress or inconvenience, or of which she

could give a distinct account. Some time after, she began to have a vaginal discharge, and on the 10th of November, I was requested to prescribe for it. She expressed her apprehension that there was ulceration of the os uteri; ocular inspection did not detect any; but there was very evident congestion of the parts. I directed a constitutional and local treatment, which had so favourable an effect, that I visited her but a few times.

On the 16th December, in the midst of one of her menstrual periods, she was extremely imprudent in exposing herself to the effect of dampness and cold. In the evening, she became ill and passed a very distressful night. In the morning I received an early and urgent message to visit her, and found her in great distress. She had great pain and tenderness in the hypogastric region; the pain extending down into the pelvis, into the back and groins. The whole uterus was much enlarged,—the os and cervix uteri were enlarged, smooth, hard, with a marked increase in temperature, and extremely intolerant of pressure on any part that I could reach. One circumstance in the case seemed to me very remarkable,—that, with so much local distress and disorder, there should be so little constitutional disturbance. The treatment consisted of leeching repeatedly, internally and externally,—a very free use of magnes. sulph. and antimon. tart., in divided doses—fomentations—anodyne injections per anum et vaginam—anodynes internally, when the symptoms required them—restricted diet, and recumbent posture. Under this treatment, the urgent distress was soon relieved; the tenderness in the hypogastric region gradually subsided, as did also the tension, tenderness, and heat of the os uteri, and there was a sensation of softness and laxity in the parts compared with their former engorged state. But still the uterus was evidently much enlarged, and there was still a very tender spot on the left side of the cervix, extending as high up as I could reach. She continued to improve, and became so well that she was about her chamber and went down stairs. She had fœcal discharges every day, but they were not sufficiently evacuant, and she was obliged, occasionally, to use laxatives. In the evening of January 13th, she took a cathartic pill. At 4 o'clock next morning she was obliged, as the effect of the pill, to get up to the chair, and while on it she was suddenly seized with great distress, and very peculiar sensations—pain in the groins and top of the thighs—frequent inclination to urinate, which was done with great pain and difficulty;—still greater difficulty in defœcation, with a distressing pressure on the rectum. Upon examination, at an early hour in the morning, I found the pelvis almost filled up by some body, which was interposed, in the cul-de-sac, between the vagina and rectum, and which rested on the perineum. The os uteri was high up behind the symphysis pubis, nearly on a level with its crest, and so pressed against the bone, that it was not reached without some effort. The diagnosis was very clear that it was a

complete retroversion of the enlarged uterus, which was at least four inches in length. Dr. Meigs thought it could not be much less than five inches. The immediate cause was probably an accumulation in the sigmoid flexure of the colon, which accumulation had been caused by the enlargement of the uterus. I introduced a catheter, without delay, to ascertain if there was an accumulation of urine, but found very little. The operation was afterwards repeated as often as was necessary to be assured that there was no accumulation in the bladder. The bladder had been carried backwards with the uterus into the pelvis; for when a gum elastic catheter was carried in about six inches, the patient said she felt the instrument passing down into the pelvis.

After the introduction of the catheter, I attempted to return the uterus, by placing the patient in various positions, and by applying pressure to the fundus, both per anum et per vaginam. But my varied trials accomplished nothing; the uterus seemed to be as immovable as if there had been adhesions, and it was still so tender, that pressure upon it gave the patient a good deal of uneasiness. In the afternoon of the same day (Jan. 17) I requested my friend, Dr. C. D. Meigs, greatly experienced in this class of diseases, to visit the patient, in consultation, which he did promptly; and he repeated, with a strenuous determination to conquer success, the trials which I had already made, and with the same result. At subsequent visits he made repeated attempts to bring down the os uteri so low that he could introduce Professor Simpson's sound; but he made hardly any approach towards success. He then gave the sound (made of annealed silver) a short curvature, somewhat resembling a blunt hook, with the view of using it as a hook to draw down the os uteri; but with no better success. Dr. Meigs visited the patient with me once or twice a day, on the three succeeding days, and we both renewed our efforts to replace the uterus, but without any appreciable success; for the fundus still rested on the perineum. But although the uterus remained unmoved, some important changes had taken place in the condition of the patient. She could urinate without much distress, although very slowly. The pressure upon the rectum was much less distressing, and there was less difficulty in defœcation. On the day the retroversion occurred, I prescribed castor oil and laxative enemata in ordinary doses. They operated a little, with very frequent efforts, attended with much distress in the sigmoid flexure and descending colon; but they did not produce free evacuations. The next morning I directed an enema of one quart of linseed tea. This had a very favourable effect. It seemed to act as a solvent to the contents of the sigmoid flexure, and procured a very copious evacuation, with comparative ease, and to the great relief of the patient. A similar enema was given, with the most satisfactory effect, once or twice a-day, so long as any aid was necessary to keep the bowels free, and to prevent accumulations in them.

Having used for four days without any appreciable effect, all the means in our power to replace the uterus; as the very urgent symptoms in the bladder and rectum had abated; as menstruation had supervened, and the engorgement was slowly subsiding, it was deemed advisable to suspend for the present the efforts at replacement, and Dr. M. discontinued his visits, until some change in the patient's condition should require his return. It was agreed, at the suggestion of Dr. Meigs, to introduce into the vagina a small gum elastic bag stuffed with curled hair. It was supposed that its continued gentle pressure, aided by the patient's frequently resting on her knees and elbows, and the catamenial discharge, would favour the subsidence of the engorgement, and aid any efforts of nature to restore the uterus to its normal position.

The uterus was so large and laid so low that at first only a very small gum bag could be introduced, but on each succeeding day it was found that the size of it could be very considerably increased. At the end of four days the uterus was evidently diminished, and the fundus, instead of resting on the perineum, was crowded back into the hollow of the sacrum, and the os uteri was shoved up very high.

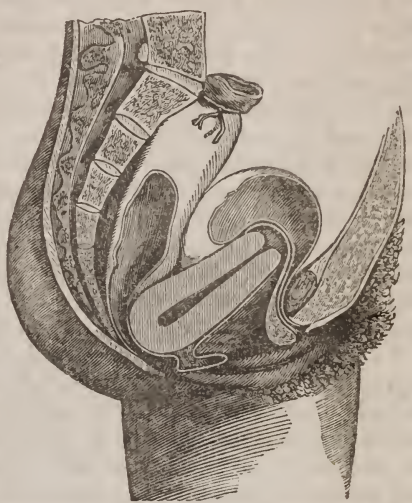
In one of our consultations, I stated to Dr. Meigs my belief, that I could contrive an instrument which would be more efficient, in such a case, than any of the means we had employed, or that were known to me, and explained to him the principles of it. Directions were immediately given to Messrs. Rorer and Son to construct one. The instrument was finished Jan. 25th, (five days after Dr. M. discontinued his visits,) and on the first trial of it, with great ease to the patient and to myself, I entirely replaced the uterus. The patient was so satisfied with my success, that she immediately said, "I beg you, doctor, never to use your finger again in such a case."

It is proper to observe, that during the use of the gum bags I made a few attempts to replace the uterus. In an attempt, just before the instrument was obtained, the uterus seemed no more movable by the finger than if an adhesion had taken place between it and the surrounding parts.

After the replacement of the uterus she had not the least uneasiness or uncomfortable feeling, unless she got into an upright position or on her feet, when she experienced a sensation of weakness and uneasiness in her back and hypogastric region. The neck of the uterus was still enlarged. She had also some vaginal discharge, which was removed by using a few times a weak solution of nit. argent. I directed a recumbent posture, a copious enema of linseed tea every day, so as to avoid any straining in defœcation; and, should any uneasiness occur in the uterine region, resembling that she had lately experienced, to place herself immediately on her knees and elbows. At the end of a week I directed her to try an abdominal supporter. She obtained one of Mrs. Betts, which, as the

patient said, acted like a charm. She could immediately sit up or walk about, without any inconvenience or disagreeable sensation, and, indeed, says she has been entirely well ever since its application.

The position and size of the uterus were so nearly the same in both of these cases, that the accompanying diagram furnishes a good illustration of the relative situation of the pelvic viscera* in each. The only difference seemed to be that, in the first case, the mouth and neck of the uterus were much softer and more yielding to the touch, and did not press so firmly against the pubis; and perhaps the body of it was a little thicker and broader. An examination of the engraving will show that the attempt to replace the uterus in such cases, by pressure with the finger in the vagina, will have very little effect. It will only shove the fundus back into the hollow of the sacrum. It will also show that, although the finger or thumb may be more efficient when introduced into the rectum, yet it lacks one important desideratum to ensure success, viz: sufficient length to lift the fundus above the promontory of the sacrum. It will also aid one in forming an estimate of the utility and safety of Professor Simpson's uterine sound, as a means of replacing the uterus in such cases. As I have had no experience in the use of this instrument, except to witness a trial of it in one case, perhaps it will be thought obtrusive in me to offer an opinion. Yet, after some study of its capabilities, it seems to me, that in those cases of retroversion, where instrumental aid is most needed, it will be found useless; and, that in those cases where it can be used, it may be questioned whether the patient would not, in almost every instance, be better without its use. Indeed, would it not be a dangerous weapon in the hands of those bold chivalric practitioners, who are determined never to be thwarted? As a mere sound, it is probable that a much lighter and more flexible instrument would be preferable.



It may be asked, do such cases often occur as that for which this instrument was contrived? As I have not made displacements of the

* In order to show the position of the membranes of the viscera, the artist has not represented the os uteri pressing against the pubis and the fundus against the rectum, as they did in both cases; and the uterus is represented of smaller dimensions than it was in either of them.

uterus either a specialty or a hobby, and do not pretend to have enjoyed extraordinary opportunities for observation, my answer may be of little value and must pass for what it is worth. But I reply, that according to my observations and inquiries they occur very rarely. In a practice of above thirty years, I have not met with a case of retroversion in pregnancy; I have met with only one case in a puerperal patient, which is the first case contained in this paper; and with only one case unconnected with the pregnant or puerperal state, and that is the second case which I have read. Any person who will examine the various treatises on midwifery and the diseases of women, may be satisfied that the writers thereof have had extremely few or no cases of this disease in pregnant or puerperal patients. In some of them it is not noticed, and in those who do treat of it, their articles are made up of quotations, references, comments, and suggestions, not of facts occurring under their own observation.* I venture to assert, with confidence, that no man of ordinary sagacity, who has had a case of retroversion in pregnancy, will afterwards recommend the following practice, which is to be found in most of the late authors, and which I quote from Dr. Dewees.

"The hand being well lubricated, should be passed into the vagina in a state of supination; the fingers retracted in such a manner as to form a straight line at their extremities; they must then be gently pressed against the base, as it were, of the tumour, that is found in the vagina, so as to move it backwards and upwards along the hollow of the sacrum, until the mass shall reach above the promontory of this bone; when this far, the hand may be withdrawn and a pessary introduced of a proper size."

Here observe, that in a case where a tumour fills the cavity of the pelvis, where the tumour is so large as to rest on the perineum, to press against the pubis so as to obstruct the introduction of a catheter, and to press so hard against the sacrum as to prevent defœcation; when the vagina is put upon the stretch longitudinally by the height to which it has been carried by the os uteri, in such a case, the whole hand is to be introduced into the vagina. And the hand is not only to be introduced through parts not dilated nor relaxed by the physiological effects of parturition, but, before proceeding to act on the tumour, the extremities of the fingers are to be brought into a straight line, a form which will require a large space for the hand. This straight line of the fingers must then be brought against the base of the tumour that is found *in the vagina*. Now, this tumour is not in the vagina, but behind it, and the base of the tumour rests on the perineum and os coccygis. If the hand could be passed into the vagina (which is impossible in such a case), it

* It is but justice that I should qualify this remark by a reference to the recent publications of Dr. C. D. Meigs, viz: his "Obstetrics," his "Letters," and his Note to Colombat. In these will be found some interesting facts, and the statement that he has met with a *great number* of cases of retroversion.

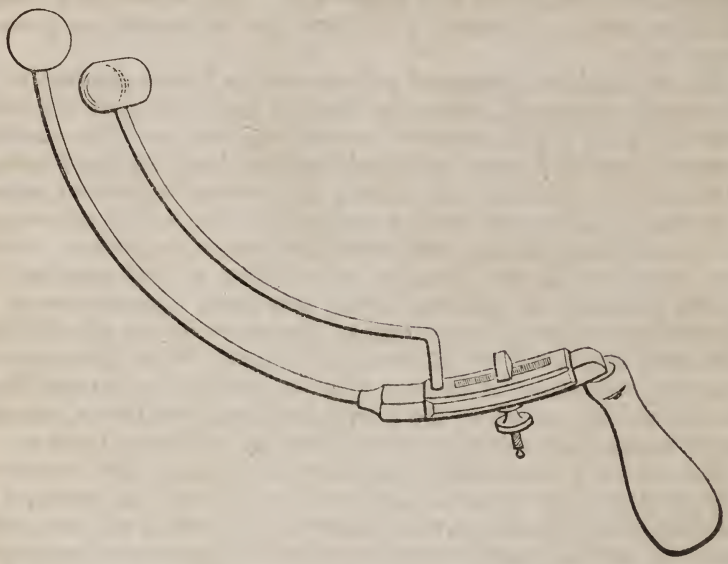
might press the tumour backwards, but would have very little or no effect in lifting it upwards. When the tumour is lifted above the promontory of the sacrum, the operation is to be finished by the introduction of a pessary of a *proper size*. What would be a *proper size*, after such an operation? Perhaps that of a quoit, or a small cocoa nut.

But, although such cases of retroversion as I have referred to in the preceding remarks, when the uterus is much enlarged, are rare, there are other displacements of it occurring much more frequently, in some of which it is probable this instrument may be found useful. I refer to those flexions and tiltings of the unenlarged (and otherwise healthy) uterus, to which some persons attach so much importance, attributing thereto numerous local and constitutional disorders, which are, as they think, to be removed by that panacea for uterine ailments, the *pessary*. Such are those cases where it is practicable to change the position of the uterus by the use of Prof. Simpson's sound. My opinion is, that most of these are cases of neuralgia, and that though they may be perhaps aggravated, they are not entirely caused by the wrong position of the uterus, and are not to be remedied solely by replacement by mechanical means.

But, as very distressing symptoms are undoubtedly connected with, or dependent upon, the abnormal position of the uterus, it is desirable that it should be ascertained in the easiest and most certain way, whether replacement and retention in place are the proper and sole remedy. Replacement can seldom fail to be accomplished by the use of this instrument, without any probability of irritating the uterus, although it be in a pathological condition, which can scarcely be said of Prof. Simpson's sound. If the distressing symptoms have been caused by displacement, the immediate effect of replacement will aid in determining whether it be an affection which can be cured by merely mechanical treatment, or whether the symptoms be owing to a morbid condition of the uterus and its appendages. This I regard as an important question in diagnosis, often not easily settled, which this instrument may aid in determining.

Description of the Instrument.—The instrument (see accompanying figure) consists of two blades, the *anal* and the *vaginal*, and of a clamp-headed screw and nut to fasten them together. The anal blade has the larger curvature (a radius of about four and a half inches), has a square body three inches long, upon which the other slides and rests, and to it belongs the handle of the instrument. The vaginal blade has a smaller curvature (a radius of about three and a half inches), so as to make the blades parallel; has a large groove, about two inches long, exactly fitted to the square part of the other blade, so as to slide upon it, and to obtain a firm attachment by means of the screw. The groove has a fenestra through its upper side, one and a quarter inch long, wide enough to give passage to the head of the screw, when this is placed longitudinally. That

part of the screw, which is within the fenestra, is square, so as to prevent its rotating when the nut is turned. The end of each blade is terminated by an ivory tip. That on the anal blade is spherical,



and is about five-eighths or six-eighths of an inch in diameter. It should be as large as can be conveniently introduced. It would probably be better to have it oval, if it could be readily introduced. This difficulty may be overcome by means of a suitable speculum. The tip of the vaginal blade is oval, approaching to a cylinder, with hemispherical ends, about one and a quarter inch long and five-eighths of an inch diameter. The tips are screwed on to the blades, so that they may be readily taken off and exchanged for others of a different size and shape, if desired. The distance between the tips and the junction of the blades is about six and a half inches.

In using the instrument, detach the blades from each other; introduce the anal blade into the rectum, then the vaginal blade into the vagina; then fasten the two together by means of the screw. Be particular to keep the blades parallel with the axis of the pelvis, and never thrust them forward with inconsiderate haste. The tip of the vaginal blade can be placed higher or lower, as circumstances may require. If the fundus uteri has sunk low between the rectum and vagina, it will be best to shove up the movable blade, so that the two tips shall be nearly on a level. In this position of the tips, it is intended that the space between them shall only be sufficient for the vagina and rectum, without pressing them—a space not exceeding three-eighths of an inch. If the fundus uteri does not lie low, or if

the instrument has been carried up as high as the vagina will easily admit, loosen the screw, and, without allowing the vaginal blade to retreat, carry up the anal blade in such a manner as to throw the fundus forward into its natural position. Cases may occur where it would be desirable and convenient to use either of the blades separately. Should it be found desirable to place the tips at a greater or less distance from each other, than can be done by the slide, this can readily be accomplished by placing a small wedge under either end of the sliding groove.

Dr. Condie remarked, that since the last meeting of the College, a case had fallen under his notice, which, though of little interest in itself, would serve as another fact to be added to those already accumulated in reference to the effects of etherization.

About 11 o'clock, on the evening of the 7th of February last, he was requested to meet Dr. Scoffin, in consultation, in a case of great emergency. On arriving at the house of the patient, he learned that Mrs. H., a lady of about 27 years of age, of short stature and dark complexion, had been taken in labour about three hours previously, and that simultaneously with the occurrence of the parturient pains, she had been seized with convulsions; a violent paroxysm of which was induced upon each return of the pains. The lady was the mother of one child, which was born after a somewhat lingering labour, but unattended with the slightest accident. For many weeks she has experienced a good deal of anxiety in consequence of an anasarcous swelling which had commenced in her lower extremities, but finally extended over her whole body. The intumescence was very considerable; her face was bloated, and her lower extremities, especially, enormously distended.

On an examination per vaginam, the head of the child was found to be high up, and the os uteri very tense, and but little dilated. Instrumental delivery was of course out of the question.

The convulsions were most violent, and the safety of the patient demanded prompt relief. The pulse being full and somewhat tense, I recommended that twenty ounces of blood should be taken away, and the patient then placed under the influence of ether. The anæsthetic effects of the ether were very quickly induced, and although the patient did not lose entirely her consciousness, she experienced no pain, nor were the convulsions repeated, so long as she remained under the influence of the ether. Labour, nevertheless, went on regularly; an increased secretion of mucus occurred in the vagina, the os uteri lost its rigidity and readily dilated, and in less than two hours the lady was delivered of twins; the first, a vertex presentation, was born alive; the second, a footling presentation, was dead born. At the termination of the labour the inhalation of the ether was discontinued, and very soon the convulsions returned with nearly the same violence as before. They were finally

subdued by cups to the head, a blister to the back of the neck, sinapisms to the extremities, and active purgative enemata. The lady and her child are both doing well.

The ether appeared, in this case, to be beneficial by suspending the convulsions until the labour was terminated, which latter it appeared, also, to accelerate.

Dr. Griscom stated that since the last meeting of the College, he had resorted to etherization in the case of an unmarried lady who had been for a long time affected with irregular menstruation, and occasional attacks of pain resembling the most violent attacks of dysmenorrhœa, though the patient was not at the time menstruating. The suffering during these attacks were most intense; in one case the pain inducing a state of unconsciousness. The ether was not administered to such an extent as to destroy the consciousness of the patient; it was repeated about every hour until the pain ceased. With the effects of etherization in this case, Dr. G. stated that he was much pleased.

He had employed the remedy this day in a case of labour, with the most satisfactory results. The sufferings of the lady in her former labours had been very intense, and almost without an interval of ease for many hours. The commencement of her labour to-day presented indications that it would be as protracted and attended with pains of equal intensity. The ether was administered to an extent sufficient to suspend her sufferings without inducing a state of unconsciousness. Independently of the relief of the pain procured by etherization, the labour was very considerably shortened, by it being terminated within two hours, instead of continuing for six hours as formerly.

Dr. Bond stated, that about ten days ago he was called to see an elderly female, who had enjoyed all her life uncommonly good health; never, within her recollection, having any ailment requiring the attendance of a Physician. Some time previously to his visit, she had been attacked with neuralgia of the side of the head, extending around the ear.—She at first believed that it would go off without medical advice, but the pain increasing in intensity, Dr. Bond was sent for. He directed a portion of muslin cut in such a shape as to be applied directly upon the affected parts, to be wet with chloroform, and after its application to be covered with oiled silk to prevent evaporation.—The relief was almost instantaneous; the chloroform was repeated at short intervals,—and the pain was very soon entirely removed.

Dr. Griscom remarked that he has used the chloroform externally with very happy results, but confesses that he is somewhat fearful of its effects when exhibited by inhalation.

Dr. Bond is perfectly aware it is a very common opinion that the ether is a much safer anæsthetic agent, for internal exhibition, than the chloroform, but he believes this to be an error. He considers the chloroform the safest of the two. Ether produces, frequently, before its anæsthetic effects are manifested, a state of very considerable excitement, but nothing of the kind, so far as his experience goes, is caused by chloroform. Dr. B. is inclined to think, that the real cause of danger from the exhibition of chloroform, is the improper manner in which it is frequently exhibited. Being the most powerful agent of the two, the greater is the importance of caution being observed in its inhalation and that it be well diluted with atmospheric air.

Dr. Wood remarked, that to him, the action upon the system of the chloroform and ether, appears to be very different; the first being directly sedative, while the sedative effect of the ether is secondary, its first action being that of an excitant. Hence the danger from the use of the chloroform is most liable to be immediate. If the patient pass safely through the first effects of the article, there is little danger of any organic lesion resulting. Hence chloroform is a less doubtful remedy in cases in which there is any tendency to inflammation or local congestion than the ether.

Dr. Parrish has used chloroform, locally, in the supra-orbitary pains incident to cases of rheumatic ophthalmia, and in the deep seated pains, common in inflammatory affections of the eye, and has derived from it the most striking relief. In these cases very large doses of opium are of little avail.

In a case of syphilitic ulceration at the root of one of the finger nails, attending with intense suffering, at night, from pain, extending up the arm, and depriving the patient of repose, the local application of chloroform produced very decided relief, enabling the patient to pass very comfortable nights. Opium and various other remedies had been used, and without producing any decided or permanent relief.

Dr. Coates inquired of Dr. Hays, whether the journals present any cases in which the local application of either of the anæsthetic agents has been resorted to as a means of relieving pain previously to surgical operations? It is very certain that the external application of chloroform will benumb the sensibility of a part, and if, upon trial, it shall be found that the effect is sufficiently permanent to enable a surgical operation to be performed without pain, the danger resulting from the internal use of chloroform could be avoided. He is aware that by some persons, pain is considered to be a useful stimulant in operations, by which the recovery from them is rendered more prompt and certain. To this doctrine he is not pre-

pared to subscribe, he believes pain to be an evil, and that, when severe, it exhausts the powers of life, and may even produce death? hence he considers every rational means for its prevention to be worthy the attention of the Surgeon.

Dr. Hays replied, that the local application of chloroform, as the gentleman is no doubt aware, has been suggested by Dr. Simpson for the production of anæsthesia in surgical operations, and has been actually employed for that purpose by Dr. Nunnelly. The local application of cold, has also been suggested by Dr. Arnott, as an effectual means of destroying pain in operations.

Dr. H. stated that the gentleman whose case was mentioned by him, at a late meeting of the College, has since had another attack of the neuralgia in his lower extremity; the application of the chloroform was again resorted to, and it afforded relief, but not quite in so decided a degree as it did at first. In another case of violent neuralgia in which he has repeatedly employed the remedy, locally, the patient says that the pain is always arrested by it.

Dr. Coates proposed the use of the tincture of aconite as an anæsthetic agent; it has the power of benumbing the sensibility of the surface upon which it is applied, and he believes that to relieve pain, it might be very advantageously used, both internally and externally. It is true that the local application of this article would not be prudent upon parts about to be divided by the knife. He believes, however, that it may be used internally with perfect safety, to an extent sufficient to ensure it anæsthetic effects.

Dr. Hays remarked, that the aconite is perfectly safe as an external application, but nothing short of a saturated tincture will have the effect of controlling pain. He has often used it with benefit in cases of neuralgia. An ointment, composed of one or two grains of aconitina, rubbed up with a drachm or two of lard, is far more effectual than the tincture of aconite. It produces in the parts upon which it is applied, a sensation of coldness succeeded by numbness. He attended a lady from North Carolina affected with violent neuralgia of the supra-orbitary branch of the fifth pair, in which the application of a portion of the ointment, of the size of a small pea, never failed to produce prompt relief. It acts as a direct sedative. A strong solution of the cyanuret of potassium will produce, also, anæsthesia.

Dr. Jackson can testify to the anæsthetic effects of the saturated tincture of aconite when applied externally. He himself suffered a short time since from an attack of violent neuralgia of the side of the face, extending to the eye; a portion of the tincture of

aconite was rubbed over the seat of the neuralgia, and in fifteen or twenty minutes the pain entirely ceased. The parts felt benumbed, and the skin, as it were, indurated. After continuing the use of the remedy for five or six days, the disease entirely disappeared.

He has since tried it in a case of tic douloureux of the jaw, but unsuccessfully.

Dr. Page has employed, frequently, the ointment of veratrine externally, for the relief of neuralgia. The topical application of all the active narcotic poisons, as a means of relieving pain, has long been known. But the question is, can either of them be employed in this manner, successfully, to prevent the pain of surgical operations? Whether any of them will answer, when thus employed, to effect this important end, he is unaware. If, upon trial, they should be found to succeed, a most important end will be gained, and the objections to the production of anæsthesia by the internal use of ether and chloroform, removed.

Dr. Coates related a case of intense pain in the temple which was relieved by the remedy, the face feeling like parchment.

Dr. Parrish has known a poultice composed of the green or even dried leaves of the stramonium, to act quite as effectually as chloroform in relieving the pain occuring after operations upon the eye.

Dr. Bond has frequently used the ointment of stramonium in neuralgia with good effect.

Dr. Wood believes that the credit of suggesting the local use of chloroform as a means of relieving pain is due to the physicians of this country. It was first proposed in Boston, by an anonymous writer, in the Medical and Surgical Journal of that city, and, was afterwards, brought before the British Association, by Dr. Nunnely, as a means likely to be useful in many cases; but the first instance in which he is aware that the local effects of the chloroform were actually tested, for the relief of neuralgia, was in the case related by Dr. Hays, at the last meeting of the College.

Dr. J. F. Meigs inquired whether either of the Fellows could give him any information as to the effects of the seeds or root of the burdock in cutaneous affections. A practitioner, from the interior of the state, Dr. Riter, mentioned to him, recently, that he had succeeded in curing many cases of psoriasis by a saturated tincture of the seeds of the burdock. He had suffered, himself, for many years from psoriasis upon his legs; at the suggestion of a non-pro-

fessional acquaintance he was induced to make a trial of the burdock. He used a table spoonful three times a day for severa-months, when an entire cure of the disease was effected.

Dr. Page stated that the narrow leafed dock is a very common remedy in the South in cutaneous diseases and ulcers.

Dr. Norris remarked that the yellow dock is used constantly in the New York Hospital as a remedy in cutaneous diseases.

Dr. Moreton Stille stated, that in a case of psoriasis, admitted into the Pennsylvania Hospital, in which the disease covered the entire scalp, and with large patches upon the limbs and different parts of the body, three drops of Fowler's solution were administered, three times a day, with half a pint of decoction of dulcamara daily, the parts affected being, at the same time, bathed with a decoction of flaxseed, while the tar ointment was applied to one arm. The scales soon commenced to fall off, and the eruption to assume a better appearance, especially upon the arm to which the ointment had been applied. The iodide of sulphur was now applied to the other arm: this appeared to produce a much more rapid effect than the tar ointment. It was therefore applied to the other parts of the body. The patient has been under treatment six weeks, and exhibits no trace of the psoriasis, excepting a discoloration of the parts it occupied. His general health is good. To the scalp, which was covered with a thick crust, the tar ointment was applied for two weeks, and under its use the entire removal of the disease took place.

Dr. Jackson has been in the habit of employing an ointment of sulphuric acid in cases of psoriasis. Under its use the disease, in general, began speedily to improve, and by continuing steadily the ointment, got well, finally, without the necessity of resorting to other remedies.

Dr. Parrish related a case of fracture of the superior maxillary bone, extending to the antrum, but not to the alveola. It occurred in a young man, who, coming down stairs, with a bundle in his arms, fell with his face against a box. A concussion of the brain was produced; on his recovery from the effects of this, a slight deformity of one side of the face, consisting in a flattening of the cheek, was discovered. It was only apparent when looking the patient full in the face; it was attended with no pain, and was so trivial as to escape, for some time, the observation of his friends. A casual remark of an acquaintance induced him to place his finger upon the cheek, when he felt a slight prominence. Dr. Parrish was immediately consulted, who considered that nothing could be done to replace the bone; in this opinion Dr. Barton, who saw the case with

him, coincided. No inconvenience has ensued from the fracture beyond the very slight deformity, which remains.

Dr. Stille remarked, that a similar case had been brought into the Pennsylvania Hospital last summer. The patient had been struck on the side of the face by a door which was suddenly blown to by the wind—A slight concussion of the brain immediately ensued, upon recovering from which, a fracture of the upper maxillary bone, extending vertically, but not to the alveola, could be traced by the finger. No inconvenience resulted, excepting a slight, scarcely perceptible deformity.

Dr. Page called the attention of the College to the lupuline, as a means of controlling the painful erections occuring in venereal cases. He has employed it now for two years, and has found it a better and more effectual remedy than any other he has tried. He gives it in the dose of from five to ten grains, and has never known an instance in which the second dose did not succeed in subduing the painful erections, so troublesome in cases of gonorrhœa. It does not cause the head-ache, constipation, and other unpleasant effects consequent upon the use of camphor and opium. He has found the remedy useful also in cases of involuntary seminal emissions. It will not cure the disease, but prevents the discharges, so long as the patient remains under its influence.

Dr. Bond stated that he had employed the tincture of iodine for the removal of pruritis vaginæ; in a number of instances it has caused prompt relief. It should be applied daily to the parts. It produces, at first, a slight glow, which soon goes off, but never any considerable smarting.

Dr. Griscom has employed the cod liver oil, lately, in numerous instances, and cannot but think that in some cases of incipient phthisis it has had a beneficial effect.

Special Meeting, March 14th, 1849.

Dr. Jackson in the chair.

Present, thirty-two members.

It being announced that the present meeting had been convened, by order of the President, to take into consideration the subject of a bill now before the Legislature of the State, and which has already passed the committee of the whole in the Senate, for the incorporation of the "College of Physicians and Surgeons of Philadelphia," and to take such action in relation thereto as may be considered proper: on motion, the following preamble and resolution were unanimously adopted:

Whereas a bill is now before the Legislature to incorporate a medical institution in the City of Philadelphia, with a title so nearly resembling that of the College of Physicians, as, in the event of the said institution being incorporated, would lead to constant and vexatious mistakes, therefore,

Resolved, That a committee be appointed to present a memorial to the Legislature, praying that the contemplated medical institution may not be incorporated with the title now given to it in the bill before the Senate, and to take such other measures in the premises as they may deem proper and expedient.

Under this resolution, Drs. Jackson, Fox, Wood, Norris, and Shallcross, were appointed the committee.

Stated Meeting, April 3rd, 1849.

Dr. Wood, President, in the chair.

Present, thirty members.

The following proposed amendment to the Laws of the College was laid upon the table.

The names of gentlemen proposed as candidates for Fellowship, shall not be placed on record unless the said candidates shall be actually elected; the written nominations of unsuccessful candidates shall be destroyed immediately after the adjournment of the meeting at which the candidates are balloted for.

The following Resolution was adopted.

Resolved, That the Committee of Publication be instructed to transmit to the Medico-Chirurgical Faculty of Maryland, a copy of the published Summary of the Transactions of the College, and, also, hereafter, a copy of the numbers of the said Summary as they appear.

Dr. Hays remarked, that he had seen, within a few years, some curious cases of exalted sensibility of the retina, from a cause which he believes has not been suspected of such an effect, viz.: irritation of the dental branch of the fifth pair of nerves. These cases much interested him, and if the College had nothing better to occupy their attention, he would present a verbal sketch of them; he had not prepared any written history of the cases, having no previous intention of submitting them at this meeting.

The first case occurred in a gentleman, the Cashier of a Bank in North Carolina. At the great fire in Wilmington, he had suffered considerable fatigue and exposure in endeavouring to save the books and papers of the Bank, and had, subsequently, severely tried his eyes in arranging the documents which were rescued from the flames. He soon experienced great intolerance of light. For this he was treated by the physicians in his vicinity, but with only temporary relief. He subsequently visited Virginia and Raleigh, North Carolina, for medical advice; but from none of the remedies or plans of treatment employed in his case, did he experience the slightest permanent benefit; on the contrary, the intolerance of light increased to such a degree as to render exposure to light perfect torture. Dr. Hays was written to. Believing the case to be

one for which it was not possible to prescribe judiciously until he was enabled to make a thorough examination of it, he requested that the gentleman should be brought on to Philadelphia; but his friends, in reply, suggested that this would scarcely be possible, in consequence of the excessive photophobia under which the patient laboured, rendering the slightest degree of light intolerable. Dr. Hays suggested that the eyes should be entirely defended from the access of light by covering them with a mask of wadded silk. This suggestion was adopted. When the gentleman reached the city, Dr. H. found him labouring under the most aggravated degree of photophobia. In a room so perfectly dark that the Doctor was unable to see any object whatever, to the patient, the light reflected from his own hands, was intolerable, and that from his shirt bosom caused so much suffering that he was obliged to keep the latter constantly covered. The colored nurse, whom he had brought on to attend upon him, happening to enter the darkened room, the light from a white apron she wore produced so much suffering to the patient, that he flew into a violent passion at the poor creature, and threatened punishment should she ever enter his presence again similarly attired. So exalted was the sensibility of the retina, that in the darkened room, where Dr. H. could not see his hand held up before him, the patient was able to distinguish the objects around him, even the figures in the carpet. He was, at length, persuaded to submit to an examination of his eyes, which he bore with great fortitude. Dr. Hays found scarcely a trace of inflammation of the eyes or of any other apparent disease. The stomach of the patient was somewhat deranged. This being remedied without relief to the photobia, the Doctor was induced to seek for some other source of irritation, and, after reflection, he was induced to suspect that the teeth, several of which were defective, but not painful, might be the source of the evil. At his suggestion a couple were extracted, but without causing any diminution of the intolerance of light. After some eight or ten days, Dr. H. examined the patient's mouth himself, and upon striking one of the lateral upper incisors nearest to the eye most affected, with a key, the patient winced as from pain, and stated that he had often experienced a disagreeable sensation to proceed from that tooth. The tooth was extracted; with the loss of the tooth, a most disagreeable gnawing or pinching sensation at the back of the eye, which had previously tormented him, ceased. At the root of the tooth there was found a large abscess, while the periosteum of the alveola was thickened. From this time the morbid sensibility of the eyes rapidly diminished, and the patient was soon after sufficiently recovered to return home and resume his duties as Cashier of the Bank. When Dr. Hays last heard from him, which was last summer, after an interval of nearly six years, he was perfectly well, having had no return of the photophobia.

The next case was one which Dr. H. saw last fall, in consultation with his friend Dr. Ashmead, in a Spanish gentleman, who had suffered two years previously from a slight attack of iritis. On recovering from this, he experienced, whenever he attempted to read, a peculiar uneasiness in his eyes. For this, he consulted Dr. Ashmead, who advised a voyage to New Orleans; finding no diminution in the affection of the eye, he proceeded from New Orleans to Cuba. The uneasiness still continuing unrelieved, he returned last fall to Philadelphia. Dr. H. now saw him with Dr. Ashmead. Upon examining the eyes they were found to be without any trace of inflammation or other apparent disease. Still, whenever the patient attempted to read, the same uneasiness, which had now continued for some eighteen months, was experienced. Judging from the circumstances of the case first detailed, Dr. H. was lead to suspect that the source of the affection of the eye in the present case might be the same; he accordingly examined the patient's teeth, from which, according to his account, he had experienced no suffering. Finding some of the teeth diseased, the Doctor directed them to be extracted. One only was taken out, when the patient's courage failed him, and no relief was afforded to the affection of the eye. Subsequently, another tooth was extracted, at the root of which an abscess was found to exist. The patient now declared himself entirely relieved from the uneasy sensation he had so long experienced in his eyes on attempting to read. He has since continued perfectly well; now eighteen months.

Another case occurred in a lady, marked by the same intolerance of light as in the case first described; in which Dr. Hays had every reason to believe that the morbid sensibility of the retina was produced by irritation of the dental branch of the fifth pair of nerves. On examining the patient's teeth, several were found diseased. Five were extracted; at the roots of three of them there existed an abscess. The gums continued sore for some time; but the photophobia was considerably relieved. The patient passed from under the care of Dr. Hays into that of another physician. He heard subsequently that she had entirely recovered; and as no other treatment had been resorted to in her case, excepting covering the eye with a single slip of linen moistened with water, and a shower bath, he believes that he is not in error in referring the cure in this case to the extraction of the diseased teeth.

The last case he shall refer to, was that of the daughter of a physician of Wisconsin. She had been subject to frequent severe attacks of inflammation of the eyes. In July last she suffered from one of these attacks, which was followed by excessive intolerance of light, that no remedy employed by her father seemed in the least to relieve. She was taken to Washington City, where she was pronounced to be incurable by several physicians to whom her case was made known. She was then brought on to Philadelphia, and placed

under the care of Dr. H. At his first visit so great was the intolerance of light, that no satisfactory examination of the eyes could be made. From the imperfect view Dr. H. obtained of them, he ascertained that they were somewhat inflamed, and that a slight opacity of the cornea existed. Several of the young lady's teeth were decayed. Dr. H. directed two to be extracted, but without much relief to the morbid sensibility of the eyes. In a week or ten days two more of the teeth were extracted from the upper jaw. After a few days the intolerance of light was greatly diminished. The lids were painted with tincture of iodine, and treatment directed, calculated for the relief of the vascularity and opacity of the cornea, and in three months, she so far recovered as to be able to read in a diamond print Bible, and bear an ordinary degree of light, when she left for home. Since then the Doctor has not heard from her.

If he is not mistaken in his view of these cases, Dr. Hays, believes they very conclusively show that intolerance of light, and other uneasy sensations of the eye, may originate in an irritation of the dental branch of the fifth pair of nerves, resulting from diseased teeth—and the cure of which can only be effected by the removal of the latter. The first two cases appear to prove this incontestibly; the symptoms, after resisting all the other means of cure adopted, promptly disappeared upon the extraction of one or more decayed teeth, thus showing the due relation between the effect and its cause. In the last described case, though the intolerance of light was, no doubt, owing to the inflammation of the eye itself, still he conceives that it was in part, at least, kept up by irritation of the dental branch of the fifth pair, from decayed teeth.

Dr. A. Stille inquired what had been the treatment employed in these cases, previously to the extraction of the teeth;—whether any of the anæsthetic or narcotic remedies had been resorted to, and with what effect?

Dr. Hays replied, that in the first case, bleeding, leeching, and purging, had been tried; by these the disease was, at first, somewhat relieved, for a time, but then returned with redoubled violence. The tincture of aconite, veratrine, aconitina, had severally been applied around the eye, by him, for several weeks before the real source of the disease was suspected, but with little or no benefit. So far as regards the intolerance of light, the failure of these remedies may, with propriety, be said to have been complete, in the first case. The lady from Wisconsin had been under the care of her father, from July to November, and although a skilful physician, and accustomed to the treatment of affections of the eye, she assured Dr. H. that she received no benefit from any of the remedial measures employed in her case.

Dr. Ashmead remarked, that in the second case no remedy or plan of treatment resorted to, previously to the extraction of the teeth—and almost every thing else had been tried—was productive of the least benefit.

Dr. A. Stille observed, that the object of his question had been, to ascertain whether the remedies, employed anterior to the extraction of the teeth, had been followed by any beneficial result, or had failed entirely to give relief. As they were entirely unproductive of good, we may, in future cases of nervous affections of the eye, when a similar failure in our remedies is experienced, be led to suspect that some such exciting cause, as in the cases just detailed by Dr. Hays, exists, and by discovering this, and, if possible, removing it, be enabled to cure the affection of the eye.

Dr. Parrish, remarked that the subject introduced this evening to the notice of the College, by Dr. Hays, was a most interesting and important one. The cases detailed had been to him most instructive, and he should, certainly, hereafter, never neglect a cautious examination for the detection of any source of irritation from decayed teeth, in the cases of exalted sensibility of the cornea, which come under his notice.

His object in rising, now, was to point out the fact, that there frequently occur cases of ophthalmic disease in which intolerance of light is kept up by the very means resorted to to cure it; the careful exclusion of the eyes from light, and the confinement of the patient in a darkened room for many weeks, and even months. From the prolonged want of exercise and fresh air, in such cases, the energies of the system become so reduced, and the nervous sensibility so morbidly exalted, that the patients are able to discern the minutest objects in a room which appears perfectly dark to the healthy eye—while, at the same time, they cannot tolerate, without intense suffering, the slightest degree of light.

These cases are generally those of scrofulous ophthalmia, in which the seclusion and confinement are doubly prejudicial—augmenting the disease, while they induce an exalted sensibility of the eyes. At the Wills' Hospital it is the habit, in patients who have been thus injudiciously treated previously to their reception, to gradually accustom the eyes to the light, and with the best effect. In a most interesting case, which was brought to the institution from New Jersey—a child five or six years old, who had been excluded from the light for a long period, we encouraged an exposure of the eyes, gradually, to the light out of doors. The third day afterwards the child was brought to us with its head up, and its eyes wide open. By the use of tonic remedies; iron, and quinine, the salt bath, and nourishing diet, the patient was soon afterwards restored to health.

Dr. Parrish saw a case with Dr. Griscom. The patient, a child

between four and five years of age, was affected with scrofulous inflammation of the eyes, with great intolerance of light, which had lasted for some eight, nine, or ten months. The patient had been closely confined to a dark room. He recommended a gradual exposure to the open air, with the same tonic treatment as in the former case. In a short time the eyes were entirely well, with the exception only of a slight opacity of the cornea.

At the Wills' Hospital, a man was admitted with ulcer of the cornea, attended by great intolerance of light. He was advised to go to sea, and accordingly entered on board a vessel bound to Cuba. He returned perfectly cured, notwithstanding the exposure and fatigue to which he had been subjected. On leaving Cuba, he had gone to Florida and entered the army, performing all the duties of a common soldier. He stated that his eyes were improved the moment he got out to sea.

Dr. Hays remarked, that the cases just related by Dr. Parrish, were not precisely similar to those described by him. He can, however, add his testimony in favour of the beneficial effects of fresh air and open exposure, particularly on the sea shore, in the photophobia of scrofulous ophthalmia. He had a case in a child between five and six years of age, in which the photophobia was so considerable that the patient walked with half closed eyelids and depressed head, even when passing through a darkened entry. After a preparatory treatment, consisting, chiefly, of a course of mild purgatives, he advised the child to be taken down to Cape May. The parents objected, fearing, as she could not endure to open her eyes in the obscurity of a darkened room, the light of the day would cause her intolerable suffering; but as the doctor insisted upon her going, she was taken down. The evening she arrived there she ran about the sea shore, without making complaint of the light, next day she was able to do the same, and the photophobia soon disappeared entirely.

Professor Jackson observed, that, as in the cases detailed by Dr. Hays, the sensitive branch of the fifth pair going to the eye was affected by an irritation, originating in its sensitive branch distributed to the teeth, so in other cases, an irritation affecting the dental branch, will extend to other branches of the nerve than those of the eye. Thus, a gentleman solicited his advice in consequence of an intense pain he suffered, extending over the right side of the face and right ear. In the absence of febrile symptoms, or indications of local disease, the doctor suspected that the pain was the result of some defect in the teeth, causing irritation of the branch of the fifth pair of nerves distributed to the affected part. He inquired of the patient, whether he had any decayed teeth; but the reply was, no, I never have toothache or uneasiness about my teeth. Dr. Jackson

examined the jaws, but could detect no unsound tooth, and a dentist of considerable skill was equally unsuccessful. Narcotic poultices, and other calming remedies were resorted to, but without producing any permanent relief. Mr. Townsend, the dentist, upon a careful examination of the patient's teeth, ascertained that there was one, which, when sounded, was slightly painful; this was extracted, and an abscess was discovered at its root. The disease of the face now quickly disappeared.

In other cases, again, it is the motor branches of the fifth pair in which the irritation is produced, and spasms of the muscles to which the irritated branch is distributed, are the consequence. A young lady was placed under his care affected with trismus. The teeth could be separated for a short distance, but in a short time the jaws became again partially closed. The lady's general health was good. By means of an instrument, which the professor had constructed, he succeeded in separating the jaws, so as to examine the teeth. They were all, to appearance, sound. Dr. Roper was now requested to make an examination of the teeth, and after some time, by means of a small hooked instrument, he detected a defect in the last molar tooth. It had given the lady no pain or uneasiness which she could refer to that part. The tooth was, with much difficulty, extracted, and the trismus from that moment ceased.

Professor Jackson was consulted by Dr. Dickey, in a case of trismus, similar to the one just detailed. He suggested an examination of the teeth; one was found to be diseased, and was extracted. In two or three days the lady was entirely well.

Dr. Hays remarked, that he has met with many cases of severe neuralgia of the face which were cured by the extraction of decayed or otherwise diseased teeth, where there had been no complaint of tooth-ache. In the first four cases of photophobia, related by him this evening, the patients made no complaint of their teeth.

In the case of a lady who has laboured under neuralgia of the supra and infra orbitary nerves, he has every reason to believe that the suffering originates from a defective front tooth; but he has been unable to induce a dentist to extract it, as the tooth is not decayed, and they fear to mar the looks of a beautiful woman. She still suffers from the disease. Temporary relief is obtained by the application of aconitina.

Dr. West has seen a case which illustrates the remarks of Professor Jackson. A gentleman was troubled with what he described as a pulsative pain in the eye; on examination, Dr. W. found the inconvenience complained of to be produced by a spasmodic twitching of the upper eyelid. The affection had lasted for some considerable time. Anodynes had been tried without effect. Upon examining the patient's mouth, Dr. West detected a diseased tooth, on the

same side with the affected eyelid, and from the irritation thence resulting, he believed the spasmodic motion of the eyelid to result. The tooth was extracted, and the spasms ceased. They have not again returned, to the same extent as previously, but whenever the patient experiences any tenderness of the teeth, a slight twitching of the eyelid occurs.

SUMMARY

OF THE

TRANSACTIONS OF THE

COLLEGE OF PHYSICIANS

OF PHILADELPHIA.

FROM MAY 1, 1849, TO OCTOBER 2, 1849, INCLUSIVE.

Stated Meeting, May 1st, 1849.

Dr. HUSTON in the chair.

Present, eight members.

The meeting adjourned without transacting any business.

Stated Meeting, June 5th, 1849.

Dr. WOOD, President, in the chair.

Present, thirty members.

Doctors J. R. GREENE, U. S. N., and SAMUEL L. HOLLINGSWORTH were duly admitted Fellows.

Dr. C. D. MEIGS presented to the Library a copy of his work, entitled "Obstetrics: the Science and the Art."

Dr. PARRISH presented a copy of the Report made to the House of Representatives of the State of Massachusetts, at its last session, by a committee of that body, on the subject of a Sanatory Survey of the State.

Dr. Patterson laid upon the table, copies of the Proceedings of the Pennsylvania State Medical Society, at its session of 1849.

The Library Committee reported the receipt from the Sydenham Society of London, of the following works:

Hecker's Epidemics of the middle ages. Reprint of first year's publications.

Louis on Phthisis.—*Ibid.*

The Works of Sydenham.—*Ibid.*

Rhazes on the Small-pox and Measles. First work issued during the present year.

The works of Hippocrates. Third work issued during the present year.

The Committee of Publication reported that they had issued the *Seventh* number, Vol. II. of the Summary of Transactions.

The Treasurer presented his Annual Report of Receipts and Expenditures, which together with the vouchers, was referred to the Censors.

The President announced the Standing Committees for the current year, as follows:

On the *Library*, Drs. West, Pepper, and Reese.
Public Hygiene, Dr. Bell.
Theory and Practice of Medicine, Dr. Jackson.
Surgery, Dr. Parrish.
Diseases of Women, Dr. Rodman.
Diseases of Children, Dr. Condie.
Midwifery, Dr. Griscom.
Meteorology and Epidemics, Dr. Gibbons.
Materia Medica, Dr. Carson.

A communication was received from Dr. Jonathan Pereira, of London, acknowledging his election as an Associate.

A communication of like import was also received from Dr. Robert Christison, of Edinburgh.

Dr. Parrish presented the following Preamble and Resolution, which were adopted:

Whereas, the institution of a Cabinet of Pathological Specimens, under the control of the College, would greatly facilitate the promotion of science, and secure to the profession a valuable amount of material of this kind, which would otherwise, be lost; therefore,

Resolved, That a Committee of five Fellows be appointed to consider the best means of effecting the establishment of such a cabinet, and report thereon at a future meeting.

Under this resolution, Drs. Parrish, Neill, Bell, H. H. Smith, and Hallowell were appointed the Committee.

The amendment to the Laws of the College, proposed at the meeting in April, was taken up, amended, and passed as follows:

Chapter II., following Section 5.

The names of persons proposed as candidates for Fellowship shall not be placed on permanent record, unless the said candidates shall be actually elected; and, in the case of the rejection of any candidate, the paper containing his nomination shall be destroyed immediately after the meeting at which he is balloted for, has adjourned.

Dr. Patterson called the attention of the College to the following Resolution passed at the session of the Pennsylvania State Medical Society held at Reading, in the month of April last; constituting an amendment to Art. VI., Sec. 1, of the Constitution of the State Society.

"That the members of the profession in the city and county of Philadelphia, may, if they shall deem it expedient, form *three* societies within their limits, of which the College of Physicians now existing, shall be one. *Provided*, that in apportioning their representatives to the State Society, no person belonging to two or more Societies, shall be counted more than once."

Dr. Patterson then presented the following Resolution:

Resolved, That a Committee be appointed to report what action should be taken by the College in reference to the subject embraced in the above law of the State Medical Society.

Under the resolution, Drs. Patterson, Hays, and Condie were appointed the Committee.

Dr. Bell, after some preliminary remarks, presented the following Resolution, which was adopted:

Resolved, That a Committee be appointed to inquire into the condition and treatment of the insane, at the Blockley Hospital.

Under this resolution, Drs. Bell, Evans, and Gibbons were appointed the Committee.

On motion of Dr. Gibbons, it was *Resolved*, That when this meeting adjourns, it adjourn to meet on Tuesday evening, June 19th.

Propositions (1, 2, & 3,) for Fellowship were presented.

A conversation took place in relation to the prevailing diseases, and the general health of the city.

Adjourned Meeting, June 19th, 1849.

Dr. Wood, President, in the chair.

Present, thirty-eight members.

Dr. John Hastings, U. S. N., was duly admitted a Fellow.

Dr. Parrish, on behalf of the Committee on Pathological Cabinet, presented the following report:

The Committee appointed to consider the expediency of establishing a Cabinet of Pathological Specimens in connection with the College, respectfully

REPORT:

That, in their opinion, it would be desirable to take immediate measures for this object. They do not conceive it necessary to enter into any argument to prove the importance of this measure, as a means of advancing the usefulness and reputation of the College, and of rescuing from destruction, many valuable specimens which would otherwise be lost. The only question is, as to the ability of the College to collect, and creditably to sustain such an addition to its means of aiding the cause of science. Upon this point, the committee cannot entertain a doubt. The number and spirit of the members who are now enlisted in the support of the institution, and who feel that its increased reputation is closely identified with the medical character of Philadelphia, is a sufficient guarantee for the success of the undertaking. The Committee have ascertained, also, that a number of valuable pathological specimens will, in all probability, be at once deposited as the nucleus for a collection which, they have reason to believe, would be rapidly increased by additions from other sources; and, further, that a gentleman, in every way qualified for the task, could be obtained to act as Curator, gratuitously, if the College should see fit to appoint him to that office.

With these brief considerations, the Committee would present the following Resolutions for the action of the College:

Resolved, That it is expedient to found a Museum of Pathological Anatomy, to be under the direction and control of the College, and that a sum, not exceeding $50, be appropriated for the erection of the necessary cases within the hall, and for the preparation and arrangement of such specimens as may be presented.

Resolved, That a Curator, and Committee on the Musum be appointed as officers of the College, in the same manner as the Libra-

rian and the Library Committee are now appointed, and that their duties shall be defined by the By-Laws.

To carry into effect the above resolutions, the following addition to the By-Laws is proposed.

After Chap. IX., page 24 of the printed Ordinances, insert

Chapter X.—Of the Museum.

1. At the stated meeting in July, the College shall elect a Curator, and Committee of three Fellows, who shall be denominated the Committee on the Museum.

2. The duty of the Curator shall be to prepare and set up such pathological specimens as the Committee on the Museum shall deem worthy of a place in the cabinet. He shall be *ex-officio*, a member of said Committee.

3. The Curator shall label, and keep a correct catalogue of the specimens presented to the Museum, with the name of the donor; and, as far as practicable, a record of the case from which the specimen was derived.

4. The Committee on the Museum shall have a general supervision of the Cabinet, and shall present, annually, in the month of July, a report of its condition.

On motion of Dr. Fox, the said report, with the resolutions annexed, was laid upon the table until the next meeting of the College.

A conversation took place in relation to the effect produced upon the healthfulness of the atmosphere, by the practice pursued in this city, of keeping the principal streets wet, during the summer season, by frequent watering.

The subject was introduced by Dr. Emerson, who stated that he was desirous of eliciting the opinions of the Fellows as to the propriety of the practice alluded to. A circular had been addressed by a committee of the City Councils, to a number of physicians in the City, soliciting information to enable them, in making their report to Councils, to recommend the proper action in regard to the practice. He believed that the majority of those addressed, had expressed an opinion unfavourable to the practice. He himself believed that frequent wetting the streets, copiously, daily during the hot season of the year, was calculated to excite a more active decomposition of the filth which is always present, to a greater or less extent, and in this manner would tend to a greater vitiation of the atmosphere; consequently, that it should be suspended, particularly at a season when the City is threatened with the visitation of a fearful epidemic.

Dr. Jackson has always believed that the wetting of the streets in the manner in which it is practised in Philadelphia, had an injurious tendency; washing the streets by allowing a plentiful stream of water to flow down them, at proper periods, would, in his opin-

ion, be beneficial, by carrying away from their surface whatever decomposable materials they contained; but to keep this filth in a constantly moist condition, under the influence of an intense noonday sun, could not fail, he was convinced, to be productive of more or less deterioration of the atmosphere. It was a common observation, that slight showers of rain were injurious, by promoting the decomposition of whatever putrefiable materials may exist, while heavy showers wash away these materials into the neighboring streams, and are thus beneficial.

The present system of frequently sprinkling our streets, may remove one source of annoyance, the dust, but it can have little effect in allaying the heat of the atmosphere. He has known persons to complain of a sense of oppression, when walking the streets, caused by the vapour exhaled from the pavements, when they have been sprinkled with water, during the middle of the day, in very hot weather. Let the public authorities cause a stream of water to flow through all the gutters twice a day, and with a careful removal, by the brush and scraper, of the filth accumulated upon the surface of the streets, they will then aid in preserving the wholesomeness of the atmosphere, and thus produce a far greater amount of benefit, than by the present plan of daily sprinkling.

Dr. Pepper agreed in opinion with Dr. Emerson as to the ill effects of watering the streets, as practised in Philadelphia; by keeping their surface in a constant state of moisture, it cannot fail, during hot weather, particularly when they are loaded with decomposable matter, to give rise to poisonous emanations, and thus impair the purity of the atmosphere. It likewise impedes the thorough cleaning of the streets. Our citizens have been led into a belief of its good effects by its removing the annoyance resulting from dust. An occasional sprinkling, may not perhaps be objectionable, but when carried to the extent of keeping the pavements constantly wet, as it is in some of our streets, it cannot fail to be injurious.

Dr. Goddard remarked, that in considering the present subject, there is a point which is all-important in determining the propriety of watering the streets during hot weather, which has not been noticed. The argument advanced in favour of the practice is, that it lays the dust, and at the same time cools the atmosphere. It certainly does remove the annoyance resulting to store-keepers and pedestrians, from the dust, but instead of cooling, it has a tendency rather to increase the heat of the atmosphere. The intensely heated stones with which our streets are paved, convert the water sprinkled upon them into a vapour, by which the caloric accumulated by them, is continually carried upwards into the atmosphere, increasing its temperature, and rendering it more sultry, the vapour acting as a vehicle for the caloric, in the same manner as a jet of steam thrown upon an anthracite fire under a boiler.

Dr. Gibbons did not believe with Dr. Goddard that the atmosphere became heated by the evaporation of the water thrown upon the streets during the warm weather. In the conversion of the water into vapour, a part of the caloric of the heated pavement is rendered latent, and thus carried off; consequently, sprinkling the streets must have a tendency to cool the atmosphere. The temperature of the surface of our streets, is often intense when the sun shines upon them at noon; he has found the temperature to be often 120°, to 130°, and on one occasion 140°; a reasonable sprinkling of the streets, by reducing this temperature must lower that of the atmosphere. In whatever situations evaporation is going on the most rapidly, there we find the atmosphere to be the coolest.

Dr. Condie has always been opposed to the plan of watering the streets pursued in Philadelphia. It most effectually, it is true, removes the annoyance resulting from dust; but, at the same time, converts the compost of animal and vegetable matter with which the surface of our principal thoroughfares are always covered, to a greater or less extent, into a soft mud, well adapted for rapid decomposition, under the intense heat of a summer's sun. Whether the gaseous results of this decomposition, which is continually going on, are sufficient of themselves to produce disease, he was not prepared to say; but they cannot fail, to a certain extent, to impair the purity of the atmosphere, and thus aid whatever other causes may exist, in predisposing to, if they do not actually excite disease. He has perceived a disagreeable odour arising from the streets after they have been watered. He is not opposed to a slight sprinkling of the streets while they are being swept, to avoid the clouds of dust produced by that process in dry weather, and would be in favour of allowing a full stream of water to flow down the streets at proper intervals, in order thoroughly to wash their surface, but cannot approve of the plan of frequently merely wetting the pavements, just sufficient to keep them constantly muddy, and in a bad condition for the effectual removal of the filth by the scavengers.

Dr. Wood confessed that he was in favour of the sprinkling of the streets with water during the summer season. He did not wish them to be kept wet during the whole day, but sprinkled sufficiently often to prevent the formation of dust. Every one, whether he walks or rides, must have experienced the inconvenience of dusty roads in windy weather. The annoyance resulting from this source to housewives and store-keepers along our principal thoroughfares, is far greater than can possibly be produced by a judicious sprinkling of the streets. Independently of the inconvenience which the dust produces, by entering our dwellings, and by the destruction of goods in stores, we are constantly forced to inhale and swallow a large portion of it, and thus a much greater quantity of decom-

posed vegetable matter is admitted into our bodies, than can be from the evaporation of the water thrown upon the streets. It is doubtful whether any morbific emanations are produced by the practice of sprinkling our principal streets during the summer months. It is certainly not true that the inhabitants of these streets are more liable to disease than those who reside in the streets which are not sprinkled. A reference to facts would show, he believed, that less sickness actually occurred during the warm weather in the former than in the latter. He would not wish, however, to be understood as attributing this difference entirely to the wetting or non-wetting of the streets; whatever, however, has a tendency to allay the intense heat of the atmosphere during the summer, will certainly remove one of the most fruitful sources of the bowel affections, which usually prevail in our city during this season. The greater the heat, the greater is the prevalence of these affections, and the higher the mortality thence resulting. Our healthiest months are May and June, when the atmospheric temperature is moderate, and when, ordinarily, much rain falls; while, during the hot and dry months of July and August, bowel complaints are frequent, and more deaths result from these diseases than at any other period of the year. A high degree of temperature causes a stronger tendency to disease than the evaporation produced by the water cast upon the heated surface of our streets. Dr. Wood's own sensations, in riding through the streets that have been sprinkled during the warm season, convince him that the air is by that means actually cooled; there may be produced, occasionally, a sense of oppression, when at mid-day a rapid evaporation loads the air with vapour, but this is only temporary, the moisture is soon dissipated, and, if the sprinkling is repeated sufficiently often, a permanent coolness results. The effluvia productive of miasmatic fevers, do not occur in cities. There can certainly be no fear that they will be generated by the decomposition of the small amount of vegetable matter present at any time in our principal thoroughfares; it cannot be supposed that the slight sprinkling of the streets with water, can have any tendency to generate them. Do we not all know that a vastly larger amount of vegetable matter and animal excrement lies moist, and decomposing in every farmer's barnyard, than in any one of our streets; and yet, who ever thought of ascribing miasmatic fever, or any other disease to this source, in localities otherwise healthy? The odour which has been complained of as arising from the streets that have been watered, Dr. Wood thinks is rather agreeable than offensive; to his sense of smell it is similar to that which occurs after a slight summer shower.

Dr. Darrach believed that the watering of the streets during the summer months, was beneficial, by restoring to the air the moisture of which it has been deprived by the intense heat and dryness

which usually prevails at this season. It is in consequence of the dessication of the air by the heat, that during the month of July and the beginning of August, we experience a tropical climate and tropical diseases. Dry dust is not malarious, but the diseases which occur in hot dry seasons are produced by the want of moisture; the streams are dried up, and no longer afford the necessary moisture, by evaporation, to the atmosphere. It is dry, hot air which we have cause to dread, and by frequently watering the streets, we supply to the air the moisture of which it has been deprived, and in this manner remove one, at least, of the causes of disease.

In the course of a conversation which ensued on the character of the disease, reported as Epidemic Cholera, now prevailing in our midst, Dr. Henry H. Smith took occasion to call the attention of the Fellows to some points connected with the pathology of cholera, as developed by Dr. Horner in 1834, and published by him in the American Journal of the Medical Sciences for May, 1835 (vol. xxxi. page 58.) These points are arranged under four heads, as follows:

First, A copious vesicular eruption, entirely distinct from the tumefaction of villi, muciparous follicles or glands, and which pervades the whole canal.

Second, A lining membrane of coagulable lymph, which exists in the small intestines at least, if not in the stomach and colon also, resembling in texture and mode of adhesion, the membrane of croup.

Third, Vascular derangements and phenomena, which are confined, almost exclusively, if not entirely so, to the venous system.

Fourth, An exfoliation of the epidermic and venous lining of the alimentary canal, whereby the extremities of the venous system are denuded, and left patulous.

Some of these observations, Dr. Smith remarked, have since been confirmed by Boehm, a distinguished pathological anatomist of Berlin. He does not, however, give credit to Dr. Horner for their first annunciation, he being probably ignorant of the fact.

Dr. Smith presented several morbid specimens, illustrating the changes described, and urged upon the Fellows the prosecution, during the present epidemic of cholera, of investigations into the pathological condition of the intestinal mucous membrane in that disease. The point the least settled, he remarked, was the existence of a vesicular eruption, and to this, especial attention should be directed.

In order fully to detect the changes in the mucous membrane of the intestines, the parts must be macerated, injected, &c., and treated, in short, in the manner pointed out by Dr. Horner, in his paper on the subject.

Dr. Smith has, himself no doubt, that portions of the epithelium of the mucous membrane are thrown off in cholera; the fact can

be demonstrated after death; whether this, however, is the result of nflammation, is not so positively determined. His own impression was, that such is the case; but further investigations are necessary to establish the truth of this opinion.

Dr. Smith stated that Dr. Neill, had made several examinations of the bodies of individuals who had died during the prevailing epidemic, which confirm some of the observations of Dr. Horner. One of the patients died at the Pennsylvania Hospital with all the symptoms of malignant cholera, yet until the intestines had been prepared, none of the pathological changes had been recognised.

Dr. Pepper remarked, that he had witnessed the autopsy of the patient just alluded to, and must confess that he could discover nothing indicative of any organic lesion of the intestinal mucous membrane. He was, indeed, struck with the, as it appeared to him, remarkable integrity and normal appearance of all the organs examined; with the naked eye he could discover none of the changes referred to by Dr. Smith, certainly no vesicular eruption. A portion of the mucous membrane of the intestines was injected by Dr. Neill, when it presented an appearance, that to him, resembled an hyper-atrophied condition of Peyer's glands, such as he had observed during the epidemic of 1832. He was not skilled in the use of the microscope, but with its aid he thought he could detect the condition of the mucous membrane, which has been supposed to be produced by an abrasion of its epithelium.

The blood in this case was very dark, and there was a clot in the heart.

Dr. Smith replied, that the fact of so acute a pathologist as Dr. Pepper, not being able to detect, with the naked eye, the pathological changes to which attention had been called this evening, proved the necessity, in their investigation, of pursuing the course pointed out by Dr. Horner, and calling in the aid of the microscope. He had no doubt of the destruction of the epithelium of the mucous membrane in the case alluded to; and he believed the fact could be demonstrated to the satisfaction of all who would have an opportunity of examining it.

Dr. Darrach related the particulars of an autopsy of a case of cholera, made this afternoon, occurring in a patient who died in Gloucester, on the eastern side of the river Delaware.

The mucous membrane of the stomach and that of the duodenum exhibited but little change; the jejunum was inflated, its mucous membrane was of a roseate hue, and thickly covered with mucus; the ileum was contracted to a considerable extent, and its coats were more dry than usual; in the large intestines no abnormal appearances were detected. The urinary bladder was empty, and its

coats considerably corrugated, the liver was pale and flabby; the vessels of the lungs were filled with black blood. The right cavities of the heart were empty, and those of the left exceedingly contracted.

Professor Jackson remarked, that our great object in the investigation of the pathology of cholera, was to arrive at facts, clearly and accurately established. At present all is doubt, speculation, and hypothesis. The disease is now amongst us; let us examine it systematically and thoroughly, without prejudice, and unbiassed by the authority of names or systems. What are the anatomical lesions in cholera? We have it asserted, first by Dr. Horner, and subsequently, by Dr. Boehm of Berlin, that they consist in certain changes which occur in the mucous membrane of the alimentary canal, which are characteristic of the disease. Here then, is something definite to start with. Let us investigate the subject for ourselves, and ascertain whether the observations upon which the deductions of the two pathologists just named, are based, are correct. The ordinary procedure of laying open the intestines, and hastily examining their internal surface with the naked eye, amounts to nothing; the parts to be examined, must be macerated and injected, and then examined by the aid of the microscope. This is the course that has been pursued by Dr. Horner, who has pointed out the only true method of prosecuting the inquiry. To arrive at any definite results, this plan must be followed out by good anatomists, and experienced microscopists. In this manner, and by such investigators, must the facts in relation to this subject be collected, and the result placed before the profession in the form of a report.

Dr. Jackson moved, therefore, the appointment of a committee to investigate the anatomical lesions of the intestinal mucous membrane, in cholera, and report the result of their labours at a future meeting of the College.

Under this resolution, Drs. Jackson, Neill, Pepper, H. H. Smith, and Goddard were appointed the Committee.

A proposition (4) for Fellowship was presented.

On motion of Dr. Coates, it was *Resolved*, That when this meeting adjourns, it adjourn to Tuesday evening, the 26th inst.

Adjourned Meeting, June 26th, 1849.

Dr. Wood, President, in the chair.

Present, thirty-three members.

Dr. Coates inquired whether any of the Fellows present had seen the case of cholera reported in the papers of the morning, in which spasmodic contractions of the muscles are said to have occurred after death. He was aware that this phenomenon had been repeatedly observed; and he believed that it was more common in the disease as it occurred in certain localities, than in others; but he was not apprised of its having been noticed in the present epidemic.

Dr. Emerson did not observe the phenomenon alluded to, in any instance of death from cholera during the epidemic of 1832, though instances are reported in which it occurred at that time. In a series of letters upon cholera, by Dr. Hawthorn of Liverpool, which have recently been re-published in this country, contractions of the muscles after death are spoken of as having been frequently witnessed by him during the epidemic, as it occurred in Belfast, Ireland; he compares the contractions to those produced by galvanism on dead bodies.

Dr. F. G. Smith has frequently met with allusions to these post mortem movements of the muscles, in cholera subjects, in the writings of physicians who had seen much of the disease in foreign countries; and Dr. Dowler of New Orleans, refers to it as of frequent occurrence in the epidemic in that city.

Dr. Jackson mentioned the fact of death having occurred in cases of cholera, in which no discharges had taken place from the stomach and bowels, and referred to some which had fallen under his notice, in illustration of the fact.

Dr. Wood mentioned a case that he had just seen, of supposed cholera, in which there had been neither vomiting nor purging. The patient was in a very prostrate condition. The abdomen was tympanitic, with slight pain on pressure; there was a remarkable fullness of the jugular veins. The patient had experienced no painful spasms.

Dr. Pepper could confirm the fact of the occurrence of collapse in cholera, in cases unattended by any discharge from the stomach

or bowels. He believed that an examination after death, in these cases, would show that the stomach and bowels are filled with the peculiar rice water fluid which composes the discharges in the ordinary cases of the disease. He saw a case to-day, in which there was great prostration, though not complete collapse, with cramps in the stomach and limbs, and rice water discharges from the stomach, but none from the bowels. An attempt was made to bleed the patient, but without success—nothing flowing from the orifice in the vein, but a few drops of thick, dark-coloured blood, which had to be squeezed through the orifice. It is a question whether this condition of the blood in cholera, is a cause or consequence of the collapse. He was unprepared to offer an answer.

Dr. Morris referred to a case of cholera in the stage of collapse, occurring in a poor woman seen by Drs. Jackson, Fox and himself, in which the external use of ice was productive of great comfort though not of any permanent benefit. The patient, without premonitory symptoms, so far as could be ascertained, had been suddenly prostrated by profuse discharges; had quite collapsed when first seen, and died within twelve hours of the incursion of the attack.

Professor Jackson said that he had been led to resort to the use of ice externally, during the epidemic of 1832, in consequence of finding the discomfort produced by hot stimulating applications, in addition to their total inefficacy. The first case in which he resorted to the external application of ice, was one in the stage of collapse, with cold skin, and scarcely perceptible pulse. The patient expressed great delight as the ice was passed over his limbs, exclaiming, "now you have got it Doctor, that will cure me." The application was made to the surface of the limbs and body alternately, and kept up during the night. In the morning reaction had taken place; the face of the patient was flushed, and his head hot and his pulse such as called for blood-letting, which, with small doses of calomel, and camphor-water, was all that was done in the way of medical treatment. The patient got well. Since then, Professor Jackson has employed the ice externally in the algid state of cholera, with satisfaction, and would urge a trial of it. It appears to have the effect of reddening the skin, when blue and cold, and affords some confirmation to the theory which refers the colour of the blood to the form of the globules, and not to its chemical constituents.

Dr. Parrish stated that he had repeatedly noticed, since the general introduction of the use of ice for the preservation of corpses, that the surface of the latter became florid, and presented the appearance of that of a living healthy individual. He had seen a flush upon the cheek of a dead body thus preserved, so closely

resembling the hue of life, that the relatives hesitated to inter the corpse until signs of putrefaction manifested themselves. In the case of a gentleman of robust frame and florid complexion, who recently died of dropsy, the return of colour to the face was so decided, after the corpse was placed in ice, that his wife insisted the Doctor should be sent for, to give his opinion as to whether life was actually extinct or not, before she would consent to its interment.

The facts just alluded to, of the effects of ice in restoring the coloration of the skin after death, is familiar to such of our undertakers as employ ice extensively for the preservation of corpses. Whether it has any bearing upon the remarks just made by Dr. Jackson, Dr. Parrish was not prepared to say.

Dr. Jackson believed that it confirmed his views in regard to the change of colour in the blood, produced by the application of ice to the living body.

Dr. Meigs remarked that thirty-two years had now elapsed since the epidemic cholera commenced its disastrous reign in the Gangetic Delta, and still we are undecided as to the nature of the disease and its proper treatment. The millions, many millions of our fellow creatures, who, on every side of us, had fallen victims to the pestilence, cut off by an untimely death before our eyes; the thousands of clinical and necroscopic observations that have been made; the numerous statements and explanations with which we have been favoured, and from which some light upon the subject might be expected, have been alike unavailing in their influence upon the statistics of the malady. The same melancholy returns come to us as the statistics of the disease from the Nile and the Hellespont; the Volga, the Neva, and the Thames; the Seine, the Danube, and the St. Lawrence; the Hudson, the Mississippi, the Delaware, and the Rio Grande; they all alike give the fatal result of one hundred cases, and fifty deaths, or, perhaps, one hundred cases, and sixty-five deaths. All remedies and plans of treatment have proved alike ineffectual in arresting the fatal event, when the cholera has become fully confirmed.

This inefficiency of our remedial measures in the disease, is in a great measure owing to the loose and erroneous views that are entertained in regard to its pathology. They who do not view it as a mysterious, incomprehensible malady, past finding out, refer it, the one to inflammation, the other to congestion, the other to a morbid change in the blood, and others, again, to an affection of the nerves.

What question in cholera, I would ask, has been settled, besides its non-contagious nature, if even this be settled; and that other, the most important of all, its prodromous nature?

It is to Dr. Kirke, of Greenoch, in Scotland, that we are indebted for the best, soundest, and most conservative, as well as consolatory truth that has hitherto been established, relative to spasmodic cholera. I had almost said the only useful truth. That is, that it is invariably ushered in by a stadium of prodromes or premonitory symptoms, that are very ready curable in all who are willing to believe the doctrine, and act under its monitions.

I am pleased to perceive that Dr. Drake, of Cincinnati, in a publication recently made by him in the newspapers of that city, has admonished his fellow citizens of this important truth; assuring them that the disease is already upon those, who, living in a cholera atmosphere, are affected with diarrhœa; that, to use his own very strong language, under such circumstances, the diarrhœa is cholera, now curable, though dangerous, still only dangerous to such as will not suffer themselves to be cured.

I am perfectly aware that a vague notion existed in regard to this prodrome before the publication of Dr. Kirke, but to him is due the credit of having settled, established, and proclaimed it to mankind. Were our race doomed to see this detestable pestilence dwell among men as long and as persistently as variola, then I should say, that Kirke's merit is not less than Jenner's; for, I am convinced, that fully to know, and believe, and wisely to act under his information, is to have as true a safeguard against cholera, as vaccination is against small pox.

Were our municipal and state governments aware of their duty and responsibility as guardians of the people, they would take measures to reach the reason and conscience of every citizen on this point; to warn, and fully to convince and instruct every head of a family; every individual responsible for those under his domestic authority; so that, though victims must be yielded to the pestilence, only those would perish, who, by a stern necessity, or by some peculiar, extraordinary state of health, should be readily overthrown by the slightest causes. Were the warning, and the proper admonition proclaimed at the corners of our streets, in our public assemblies, in every domestic circle, to every individual,—a multitude of lives would be saved, which would otherwise be foolishly thrown away from ignorance of the danger and of its remedy. Then ought the grave stone of the cholera victim, who should have refused to believe or obey the warning, to have written on it the epigraph of the son of Ner, "Died Abner as a fool dieth."

Physicians have, unfortunately, made a faulty diagnosis, and have treated the pestilence on principles at variance with the nature of the malady, in the most essential of its stadia. What is cholera? Many will say it is a blood disease; the blood is poisoned, and thence all the consequences and phenomena. The frightful scenes of sudden death in Hindostan, at Hurdwar, on the Seinde, at the Mauritius, and even here in the Arch street prison, cannot be explained on the hy-

pothesis of poisoned blood. But you cannot poison the blood. What part of the blood receives the poison? Is it the water, the albumen, the hæmatoglobulin, or the fibrine? Is it all the elements of the blood? It would be more philosophical to say that poison may be conveyed by the blood; but it is not correct to say the blood is poisoned. The *living* solids may be poisoned. But in cholera I do not believe that the phenomena are those of any species of poisoning.

Other pathologists seek for the cause of cholera in a status of the mucous membrane, or the glandules or crypts of the alimentary canal. They expect to find, with their lenses, the solution of the difficulty in some injection or non-injection, some hardening or softening of those textures. It seems to me that to read the accounts of battalions and brigades on the march, that have plunged the heads of their columns into a cholera cloud, and to hear of the ruddy, healthy soldiers, suddenly falling by scores to the ground, some to die instantly, and some to pass into the cholera fit, is to be convinced that the operation of the direful cause can, by no means, be effected through a mere condition of the bowels, or of the blood; but that it can only depend on a modality of the nervous mass, to be brought about by a miasm sudden as wrath, and terrible as hell in its operation.

My opinion is, that cholera consists in an exaggerated intensity of the motor force, produced by the poisoning cause of the disease. A state of the nervous mass which has resulted in the gradual or the sudden condensation of all the living solids, not of the muscles alone, which are racked with cramp or spasm, but condensation, or a tendency to condensation, of every artery, arteriole, capillary, and venule, of the cellular tela, of the skin, the parenchyma of the lungs, the acini of the liver, and all other textures. Every organ, every tissue in the general anatomy, every granule, and every molecule tends towards condensation, under the stimulation of the cholera poison. So that the whole living mass, is, as it were, under a squeeze—a cholera squeeze.

In the commencement of the attack, these phenomena are not ordinarily discoverable, save in the augmented action of the muscular fibres, as in the cramps and spasmodic twitchings that are of such general occurrence among a population residing in a cholera atmosphere; and in the increased activity of the peristaltic muscles, giving rise to the diarrhœal prodrome. As the malady progresses, for it is a slow one at first, the activity of the diarrhœa augments, and the dejections begin to grow diffluent. These early monitions being disregarded, the motor force becoming constantly exaggerated, the fluids of the body which are not under the operation of the vital law of motion, seek to escape by every pore. The blood vessels, deep buried in the limbs, and among the firm thick tissues, not only condense under their own motor or reflex action, but they are compressed by the surrounding tissues, and their fluid contents

hasten to escape *quad ata porta.* The skin begins to cleave to the bones of the fingers and feet; the eyes grow sunken; the mass of the liver, with its acini and vessels shrink together, and refuses a free transit to the blood that seeks to escape through its tubes by the venæ hepaticæ. Water flows into the cavity of the stomach and intestines. They become filled, and then vomiting begins, with discharge of congee. At the same time, a profuse ephidrosis bathes the dermal surfaces in gushing streams, as in the English sweat of old, and the whole of this liquid is derived from the aqueous element of the blood. This aqueous element constitutes 790 of every 1000 parts of the blood. A stout man has 500 ounces of blood. If in an attack of cholera, he loses, in four, six, or eight hours, 200 thousandths of the aqueous element, and loses none of the solid constituents, his remaining blood will be deprived of that which is essential to its fluidity—it will have become non-diffluent—it will be arrested in the distant capillaries, and slowly permeate the pulmonary capillaries and those of the brain; it will imperfectly absorb oxygen in the lungs, and cease to be oxygeniferous to such a degree as to unfit it for extricating the biotic force from the nervous mass. Asphyxia is the certain consequence of an unbearable loss of the water of the blood by rice water discharges, and by the sweat.

If then the disease is a motor-æsthesia, it must be evident that the proper remedy is to be sought for among the anæsthetics. But which anæsthetic? There are but two dependible ones in the world; and they are opium and venesection. Would that some mortal could be sufficiently fortunate to discover an anæsthetic for the reflex or motor nervation, equal in power to chloroform as a controller of the sensor force. He would be a benefactor of his race; since the sponge, or the inhaler might instantly quell the movements that result in the fatal loss, by congee and sweat, of the aqueous element of the blood, under the condensing operations of the tissues instituted by the cholera cause, which stimulates the motor power of the nervous mass.

We have an anæsthetic in the lancet. By drawing blood to incipient deliquium, we effect the completest anæsthesia of the motor faculty. This we do daily, by our venesection in puerperal convulsions, and in reducing dislocations of the humerus and femur, and in a thousand other examples. Now, a patient in a cholera fit, can no more faint, than one in tetanus. You must make him faint, if you would procure the relaxation of deliquium. Should you make a man in a cholera paroxysm faint, you would instantly thereby suspend the paroxysm.

In 1832, I was called to see Salvador de Negri, a very athletic Sardinian, about thirty years of age, and over six feet in stature. I found him pulseless, algid, blue, voiceless; the skin was puckered, and adherent to the periosteum of his phalanges. His tongue was cold, and the mucous membrane of his everted lip cholera blue.

The patient was still under the condensing power of his universal motor spasm. His senses and animal sensibility continued good and sound.

How were we to put an end to this paroxysm—this cholera squeeze? with 3, 5, 10, 20, 60 grains of calomel; or one, five, or ten grains of opium? There was no time for the operation of such means. I tied up his cold arm, and opened the median vein; it would not bleed. I drew out a long veno-morphous clot, and the blood trickled down into the bowl. I rubbed his arm and hands, and it began to flow; the patient being all the while, as composed and sensible as if in perfect health. At length he suddenly fainted, and as he laid on his back, with his head and shoulders on pillows, the mouth opened full wide. The eyes, too, were wide open, and as he was perfectly motionless, without any apparent respiration, I felt sure he was dead. I removed the pillows to let his head fall, and dashed a pitcher of water in his face, but he did not move. I slapped his cheek violently, and perceived, with delight, that the muscles of expression began to twitch; which showed me that his medulla oblongata was not yet dead; and in fine, the motor branch of his vagus nerve began again to irradiate, with its nervative force, the subject organs. The heart and the diaphragm resumed, little by little, their play, and my patient was rescued; for, in making him faint so dangerously, I had suspended the cholera paroxysm, which is no other than a universal spasm, or intense universal operation of the motor force of the nervous mass. I produced for my patient a saving anæsthesia of his motor force. As soon as the cholera paroxysm was at an end, the mucous membrane ceased to exhale congee, it ceased to be solely an exhalent, and recovered its physiological faculty as an absorbent organ. Salvador recovered, without one of the usual accidents of dysenteric colitis, typhoid fever, pneumonia, or any meningeal disorder. Hundreds of people have been saved in the same way in all countries.

Let us suppose that a person finding himself attacked with the first symptoms of cholera, should hasten to lie down in bed, and take one or five grains of opium, or even lie still, covered warm, not hot, refusing to eat or drink for twelve or twenty-four hours. How many such could cholera kill? None, save such as were too much broken in health to withstand even slight occasional causes of illness. Dr. Hawthorne thinks that 10 grs. of opium, with camphor and capsicum, assisted by doses of chloric ether, aromatic spirits of ammonia, tinct. of camphor and laudanum, will cure every body, not too far gone already. I believe so too, for I find in his ten grain doses of opium, the equivalent of 200 drops of laudanum, which is by no means an over-dose for persons in the dreadful pains of the cholera cramp.

The cure of the blue or asphyxia stage is, for many persons, impossible. Men in losing congee, are like men in losing blood, some

can bear the loss of two hundred-thousandths and live, while others die for losing twenty-five, or fifty-thousandths of the water of the blood. I believe that many patients begin to recover as soon as they begin to be cyanosed, for that very cyanosis is, for many, the term of the cholera fit, being the result of, and the putting an end to, the morbid state of the motor æsthesia. Such persons should be kept warm, and in a horizontal posture;—their cramps are over, their exosmose is finished, and if the blood has not become too thick, or non-diffluent, the victim may be saved by good nursing. I should give such a person no calomel, but I should greatly prefer Mr. Hawthorne's jug of toast water, until he had begun to recover from his cyanosis.

If I were about to teach a young and inexperienced practitioner the use of venesection in the conduct of cases of cholera, I should begin by advising him to bleed every patient that he might dare to bleed. In the forming stages of the cholera fit, he ought, if possible, to bleed every person subjected to his medical control; and he should do this with a view to arrest the progress of the motor-æsthesia, the continued operation of which leads to an unbearable loss of the fluid portion of the blood.

If the patient is in a more advanced stage, I advise him to inquire, 1st. Is he losing, or has he already lost all the aqueous element? or in other words, is he collapsing, or is he already collapsed? If the patient is already collapsed, there is no reasonableness in taking blood, because a collapsed patient has already reached the anæsthetic stage, and wants no anæsthetic. But if he is still losing the water of the blood, I advise the resort to venesection, because I am very confident that the paroxysm will be suspended as soon as the first indications of a deliquium anima begin to exhibit themselves.

Dr. Morris remarked that he had this day been engaged, in conjunction with Dr. Fox, in attendance on a case of cholera, occurring in a poor woman, a domestic at a boarding house, and that, notwithstanding the importance of her speedy removal, they had been unable to effect it in consequence of there being no place prepared for the reception of the poor who may be attacked with the disease; and being convinced of the immediate necessity of the establishment of airy, and commodious cholera hospitals, he presented the following resolution, which was adopted:

Resolved, That a committee be appointed for the purpose of waiting on the City Councils, and Board of Health, to solicit the attention of those bodies to the necessity there exists, for the immediate provision of temporary hospitals for the reception and proper treatment of cases of cholera occurring among the poor of the City and Districts.

Under this Resolution the following were appointed the Committee: Drs. Morris, Fox, and Wood.

The Committee retired, and on their return reported, that they had had an interview with the Sanitory Committees of the City Councils and Board of Health, by whom they had been received with respect, and were assured that the suggestions of the College would be duly considered, and promptly acted on.

Stated Meeting, July 3d, 1849.

Dr. Wood, President, in the chair.

Present, forty-two members.

The Censors reported that they had examined the account of the Treasurer, for the twelve months ending June 1st, 1849, and upon comparing them with the vouchers, find them to be correct.

Agreeably to the provisions of the Charter, the College then proceeded to an election for officers to serve for the ensuing twelve months, when the following were duly elected:

President,
GEORGE B. WOOD, M. D.

Vice President,
CHARLES D. MEIGS, M. D.

Censors,
Henry Bond, M. D.
J. Wilson Moore, M. D.
Samuel Jackson, M. D.
George W. Norris, M. D.

Secretary,
D. Francis Condie, M. D.

Treasurer,
J. Rodman Paul, M. D.

The report of the Committee on Pathological Cabinet being, on motion, taken up for consideration; while the first resolution attached thereto was under consideration, the whole subject was laid on the table for the present.

On motion, Resolved, that when the College adjourns, it adjourn to this night week.

Dr. Parrish read an account of the appearances discovered in a post mortem examination of a patient who had died of cholera in the Cherry street hospital.

Dr. Condie remarked that he had seen some sixty-five cases of cholera since its occurrence as an epidemic in our midst. Of these, twenty-one were in the first stage of the disease, forty, in the second stage, and four, in the stage of complete collapse. All of these latter four, terminated fatally, the other sixty-one patients recovered. His main dependence in the treatment of the disease, has been upon the administration of opium and camphor combined with astringents. His ordinary prescription is one-third of a grain of opium, two-thirds of a grain of camphor, and one grain of acetate of lead, made into a pill, and given every one, two, or three hours, according to the amount and frequency of the rice water discharges, and the tendency to collapse. In cases occurring in broken down constitutions, he has found advantage from the addition of one grain of capsicum to each pill. Frictions with flannel cloths sprinkled with powdered mustard and capsicum, or frictions with Granville's lotion, to the limbs and surface generally, followed by sinapisms to the epigastrium, and to the inside of the forearm and legs, have always appeared to him to be productive of the best effect. The patients were allowed small frequent draughts of iced water, or small portions of powdered ice, at short intervals. In all cases, in the advanced stages of the disease, he has found very great comfort to be afforded the patient by spunging the surface with cold water, or rubbing it with a portion of ice—under the use of cold, thus applied, he has seen the skin lose its dark purple hue and its coldness, and assume a bright roseate hue, and a natural warmth. Bleeding was employed by him in a few cases—but he was unable to resort to it so generally as he did during the epidemic of 1832, nor did it produce the same beneficial effect. He has given internally the chloroform, in many cases, and has certainly found it very promptly to relieve the painful cramps of the second stage of cholera; but beyond this it has appeared to him to exert no influence over the disease. To relieve the incessant and distressing vomiting by which some cases of the disease are attended, cups to the epigastrium, followed by a sinapism; the patient, instead of drink of any kind, being supplied with small portions of ice to hold in the mouth until dissolved, with small doses, say one grain, of the oxyd of bisthmuth combined with a third of a grain of the acetate of morphia, has been the means which in his hands has proved the most beneficial.

Dr. C. believes, that in the great majority of cases, cholera may be cured, if seen by the physician before the stage of confirmed collapse has set in; but after the patient has become voiceless, and pulseless, with a cold, blue skin and tongue, cold breath, and suppression of urine, he has never known an instance of recovery. Not

only has the blood now acquired a jelly-like consistence, in consequence of the loss of its watery elements, and is thus prevented from circulating through the vessels, but there is good reasons for believing that the fibrine and red globules have undergone a change unfitting them, even could we restore to the blood its fluidity, for the support of the vitality of the organism.

Dr. Page called attention to the very malignant character of the disease as it has occurred in the Alms-house, Blockley. Up to Saturday night fifteen cases have occurred in the institution, of which fourteen have terminated fatally. Most of the cases have occurred in the out-wards; five or six occurred in the black men's medical ward. The treatment pursued has been the internal administration of calomel, opium, and sugar of lead, and frictions with different stimulating substances to the surface. The external application of both cold and heat has been tried. Cold applications to the skin changed its colour from dark purple to red, and the patients in whose cases it was used expressed their comfortable sensations from its applications, but beyond this it was productive of no advantage. One patient was bled, and died soon afterwards. The blood drawn was thick and of a dark colour, resembling, very much, currant jelly.

The disease in the Alms-house was, in general, not preceded by diarrhœa. Many were seized in the yard, and became collapsed before they could be removed. In every ease there was vomiting as well as purging. The surface quickly assumed a dark purple hue, and became, as well as the tongue, as cold as marble. One patient had the appearance as if his skin were smeared with the juice of the pokeberry. In none of the cases was there profuse perspiration.

Dr. Jackson remarked, that the man who was bled at the Alms-house, lost about 8 or 10 ounces. The bleeding was practised at the very onset of the attack, while there was still a very distinct pulse, and when there was some hope that he would react, but he sunk rapidly after the bleeding. Dr. J. saw three cases brought into the hospital from the out-wards, who had just been attacked. They were all cold and pulseless. They took calomel, opium, and capsicum, and were carefully warmed and stimulated externally. Two died in four hours, and one appeared to be out of all danger at 6 o'clock. These patients did not suffer much from cramps or pains, and they were not impatient of heat externally applied.

Dr. Darrach stated that he was called, at 9 o'clock this morning, to see a case of cholera. The patient was a coloured man, who had laboured under diarrhœa for the four preceding days. The discharges had become frequent and profuse since 9 o'clock last even-

ing; during the night he had passed six quarts of a serous fluid of a pea-green colour. When Dr. D. saw him he was in a state of incipient collapse, the skin had not entirely lost its elasticity; he complained of dimness of vision—his tongue and breath were cold; the pulse feeble and thready—he had passed urine about half an hour previously. He was placed under the treatment recommended by Dr. Ayre, of Hull. One grain of calomel with one drop of laudanum were given to him every five minutes. At 10 o'clock A. M. there was a slight amendment in his symptoms. The same treatment was continued during the day, and by 6 o'clock P. M. he was convalescent. Thirty grains of calomel, and thirty drops of laudanum were thus given. The application of ice to the surface was, in this case, productive of the most comfortable sensations. Before reaction took place he held a piece of ice in his hand, and declared that it felt pleasant; but after reaction was established he could not, without suffering, hold the ice many minutes.

Dr. Darrach referred to another case of cholera which terminated favourably after blood had been drawn from the arm. The skin in this case was warm, and the pulse active. The blood drawn was, at first, dark coloured and decidedly cool, but became red and warm before the arm was tied up.

Professor Jackson remarked, that at the City Hospital, in three instances, after reaction had been established, in patients admitted with cholera, the most profuse bilious discharges took place, under these the patients sunk very speedily—thus showing that the liver may act and yet death take place. The fact is, that the suppression of the bilious and urinary secretions in cholera is not owing to the torpor of the liver or kidneys, but to the loss of the watery portion of the blood. The liver and kidneys may be in a state well adapted for the performance of their respective functions, but the blood is not fitted for the formation of either bile or urine.

This morning a sailor was brought to the hospital in a state of profound collapse. He said this was the first sickness he ever recollected to have experienced. He had had some diarrhœa for a day or two. He was now pulseless, and suffered from cramps. His skin was of a brownish black or bronze hue—he noticed, himself, this peculiar change in the colour of his surface, and inferred from it the incurable character of his attack. He said he felt hot, though when first taken he experienced a sensation of cold. Ice was applied to his surface, and arrested the cramps. In passing the hand over his flanks, he winced, in consequence of the titillation thus induced, showing that the sensibility of the surface continued even at the approach of death. In ordinary cases of disease, if the patient can still be tickled it is a good sign; but in cases of cholera, the real difficulty in effecting a cure is our inability to restore the circulation. The blood has become thick, it can no longer flow

through the vessels, and unless we had the means of restoring to it its lost fluidity, all our efforts to arrest the fatal event must prove unavailing. The curious results produced by the injection of fluids into the veins; the momentary resuscitation, by this means, of a patient apparently in a dying state, show that the functions of the several organs in the collapse of cholera are merely suspended in consequence of the nonfluidity of the blood. The watery portion of the blood is as necessary for the sustenance of life as the solid portion.

In a case of cholera arrived at its second stage, Prof. J. administered, every ten minutes, a teaspoonful of a mixture composed of four ounces of aqua camphora, two ounces of acetate of ammonia, and one ounce of theriaca or the confection of opium prepared according to the Parisian Codix. The patient rapidly improved under this treatment, and finally recovered. The same mixture was given in a case of cholera marked by the symptoms of complete collapse, but without benefit.

Adjourned Meeting, July 10th, 1849.

Dr. Wood, President, in the chair.

Present, thirty members.

D. Paul Lajus, M. D. and J. N. B. McClellan, M. D. were duly admitted Fellows.

Dr. Condie presented a preparation of the stomach, and of portions of the small and large intestines, of a patient who had died two days ago at the Southwark Hospital.

The patient had been found, early in the morning, lying in an old caboose which had been removed from on board of a vessel. When he arrived at the hospital he presented all the indications of complete collapse. His skin was of a dark leaden hue, bathed in a profuse perspiration, and, in common with his tongue and breath, of icy coldness. His eyes were sunken and surrounded with dark coloured areola. His pulse was small and slow; his voice almost extinct. His urinary secretion entirely suspended. No cramps; great tenderness of the epigastrium. Had for several days been labouring under a diarrhœa, with frequent, copious fluid discharges. After his admission had several very large evacuations of a fluid like rice water. The patient died the day after his admission. On a post mortem examination of his body, the thoracic viscera were found to be without any evident indications of disease. Upon opening the abdomen the stomach

was found distended with gas, and containing about half a pint of a yellowish green fluid. The vessels beneath the mucous membrane were enlarged in size, and injected throughout with blood of a dark colour, giving to the interior of the stomach an appearance as though it were covered by a most delicate network of a dark mahogany colour. The rugæ were uncommonly prominent, dividing the surface of the stomach into a number of cells. This was particularly the case about the cardiac orifice. The mucous follicles were greatly enlarged, being distinctly perceptible to a common glass. Along the base of the larger extremity a number of dark striæ, of irregular breadth, extended towards the pylorus, which was surrounded by a broad patch of a dark chocolate colour. At the pyloric portion of the stomach the mucous membrane presented a number of irregular shaped whitish patches, varying from half an inch to three quarters in circumference, interspersed with a few bright red stellated specks. The mucous membrane was throughout unusually thick and soft, being removed upon the slightest touch.

The vessels beneath the mucous membrane of the lower portion of the œsophagus were also much enlarged, and injected with blood.

On carefully washing the mucous surface of the cardiac portion of the stomach, several spots of apparently a spongy structure, much lighter in colour than the surrounding membrane, and elevated several lines, were remarked.

The same enlargement and minute injection of the blood vessels of the mucous coat of the intestines, was present as low down as the upper portion, at least, of the ileum; below this, though the injection of the blood vessels still existed, it was, however, much less intense. The mucous coat of the small intestines was also softened. On holding the surface of the intestine beneath a jet of water from the hydrant, the mucous coat of the portion exposed to the action of the water was washed off, and the most beautiful net-work of injected vessels was exposed, so as to be readily distinguished by an ordinary pocket glass. The glands of Peyer and Brunner were somewhat enlarged and reddened. The duodenum contained a small quantity of a dark coloured flakey fluid; the jejunum and ileum were nearly filled with a similar fluid. The fluid contained in the large intestines was much lighter in colour, more watery, and contained much fewer flakes than that in the smaller, and these much smaller in size.

The liver was not enlarged; it was externally of a light fawn colour—of a darker hue internally; its substance was unusually dry; its porri contained no bile. The gall-bladder was very large, and contained 8 oz. of a dark green viscid bile.

The urinary bladder was entirely empty, and contracted into a solid ball of one inch diameter, its surface presenting a series of convolutions, resembling, somewhat, those of the brain.

The blood contained in the right cavities of the heart and large

venous trunks, was very dark in colour—partly fluid, and partly of the consistence of currant jelly.

Dr. Goddard remarked that the minute and extensive injection of the blood vessels, in the preparations upon the table, were not to be received as indications of inflammation. He would suggest to gentlemen who had opportunities of making post mortem examinations, in cases of cholera, to inject with water any one of the mesenteric vessels, and if the redness, as he believed to be the case in the present specimens, is only the result of a stasis of blood in the minute blood vessels, it will be washed away by the current of water injected, but if it be the result of actual inflammation, a permanent stain of the tissues will remain, notwithstanding the injection of water.

Dr. G. further remarked, that he had examined, with great care, the blood of patients affected with cholera. He had found it fluid and gelatinous by turns; allowed to rest, a short time after it is drawn, it assumes an appearance and consistence resembling currant jelly; upon being shook, it again becomes fluid. While the fibrine appears to have undergone some change, more than one half of the red globules present, under the microscope, a change in their form, their edges having become irregular or crenated.

Dr. Pepper inquired whether the peculiar odour which is said to belong to the discharges in cholera, has been observed by any of the Fellows? and whether pulmonary tubercles had been detected in the post mortem examination of patients who have died of cholera? It has been asserted that patients labouring under phthisis enjoy an immunity from the attacks of cholera.

Dr. Condie remarked that, in the epidemic of 1832, the peculiar odour emitted by the discharges from the bowels in cholera patients, was very apparent. He has observed it, also, during the present epidemic, but he thinks that it was not so decided. In regard to the supposed immunity which phthisis affords from an attack of cholera, he would only remark, that two of the patients admitted into the Southwark hospital, labouring under well-marked symptoms of cholera, in its second stage, were also affected with tuberculation of the lungs; one died, and the condition of the lungs was tested by a post mortem examination.

Dr. Gibbons remarked, in reference to a statement made by Dr. Condie, of the few cases of cholera during the present epidemic, in which he had observed any indication for the use of the lancet, that he had noticed in most of the diseases prevailing at the present season—in the numerous cases of cholic, dysentery, and the like affections, for which he had been called upon to prescribe—a re-

markable capability of bearing the loss of blood. In the early stage of cholera he had drawn blood with the most decided good effects; but had not succeeded in arresting, by this means, the march of the disease after the symptoms of confirmed cholera had fairly set in, and he would certainly not bleed any patient who was sinking rapidly into collapse. In all the cases of cholera bled by him, with one exception, the blood was of a very dark colour, and on coagulating, instead of presenting a separation of crassamentum and serum, formed a homogeneous, soft, jelly-like mass. In that exception, the blood exhibited, in a striking degree, the ordinary characters of inflammation.

Stated Meeting, August 7th, 1849.

Dr. Wood, President, in the chair.

Present, twenty members.

Doctors J. L. Ludlow, W. V. Keating, and J. K. Mason, were duly admitted Fellows.

The College proceeded to the consideration of the resolutions attached to the report of the Committee on Pathological Cabinet, which, after being amended, were adopted, as follows:

Resolved, That it is expedient to found a Museum of Pathological Anatomy, to be under the direction and control of the College; and that a sum not exceeding $50, be appropriated for the erection of the necessary cases within the Hall, and for the preparation and arrangement of such specimens as may be presented.

Resolved, That there shall be, in addition to the present officers of the College, a Curator, and Committee on the Museum, the mode of appointment and duties of whom, shall be defined by the By Laws.

The addition to the By-Laws for carrying into effect this last resolution, as recommended by the Committee on Pathological Cabinet, was then proposed by five Fellows, in accordance with the provisions of Chap. XI. of the Laws and Ordinances of the College.

Dr. S. G. Morton presented, through the Secretary, a biographical notice of Dr. George M'Clellan, the reading of which was, on motion, postponed until the next meeting of the College.

Dr. Goddard remarked, that in some experiments he had recently

performed, by immersing a frog in water at 120°, until it was rendered torpid, and then, while vitality still existed, injecting into its vessels a composition of vermillion, oil, and turpentine, he ascertained that not any portion of the injection found its way into the capillaries, but upon repeating the injection, after life was extinct, it entered freely all the capillaries; thus showing that during life the capillaries have the power of resisting the entrance into them of foreign and injurious substances. These experiments appeared to the Doctor to explain why it is that in cholera the capillaries of the lungs are devoid of blood, and the consequent asphyxiated condition of those who die from that disease. The blood becoming poisoned by the choleriac miasm, the capillaries refuse to receive and circulate it.

Dr. CONDIE remarked, that if we were to admit the capillaries to have the power of excluding the blood when it becomes contaminated by foreign or poisonous substances, it would be difficult to explain how various remedial and poisonous substances, when applied endermically to the human body, are capable of producing their specific action upon particular organs, remote from the part at which they were introduced, or, indeed, to explain the morbific action of any of the contagions upon the organism.

Dr. GODDARD suggested that while a very minute quantity of a foreign or poisonous matter admitted into the blood, as in the case of remedial agents, administered endermically, would not excite the capillaries sufficiently to cause its rejection by them, yet when the same substance is combined with the blood in any considerable quantity, the capillaries would refuse to receive and circulate it.

Dr. CONDIE replied that he had once entertained the opinion that the capillaries did possess the discriminating function assigned to them by Dr. Goddard, and had performed a series of experiments to establish the fact, but he found, contrary to the suggestion of Dr. G., that while they would very generally reject very small portions of foreign or poisonous matters, when these same matters were mixed with the blood in large quantities, it entered freely into the capillaries.

Dr. EVANS remarked that there would, in his mind, be a difficulty in admitting the correctness of the inference drawn by Dr. Goddard from his experiments, and that was to understand how the blood should become poisoned in any case, unless the poison were taken up in the first place by the capillaries.

Dr. GODDARD replied that he did not believe it necessary to suppose that when the blood becomes poisoned, the poison is conveyed

to it through the capillaries. It is well known that when a solution of acetate of lead is introduced within the pericardium, it will almost instantly become blackened by the introduction of sulphurated hydrogen gas into the cavity of the peritoneum. The contact of the gas with the solution of acetate of lead being affected not through the blood vessels, but by a species of endosmosis. Now it is to be presumed, that the poisons which are productive of disease are of a much more subtile nature than sulphurated hydrogen gas, hence there can be no difficulty in their being introduced into the blood, independently of the agency of the absorbents or capillaries.

Dr. Wood called attention to the very great disproportion exhibited by the report of the Board of Health, of the number of deaths from cholera, to the entire number of cases which had occurred within the city proper compared with those reported from the surrounding districts. This might, at first sight, be taken as an indication of the inferior success of the physicians of the city proper in the treatment of the epidemic, but he believed it was to be explained by the fact, that while the physicians of the districts reported all their cases, whether terminating fatally or otherwise, most of the physicians of the city confined their reports to the more malignant and fatal cases.

Dr. Huston remarked, that there was a great difference of opinion as to what constituted a case of cholera; while some, with Dr. Drake, assume every case of diarrhœa occurring during the prevalence of the epidemic to be one of actual cholera; others confine the appellation, cholera, to those cases alone, which presented the characteristic features of the disease. For his part, Dr. H. had not reported, during the present season, a single case. He had seen a number of cases of disorder of the bowels, and some mild cases of cholera morbus, but these he had not felt warranted in representing as cases of malignant cholera.

Dr. Condie remarked, that it was very strange any difference of opinion should exist among physicians, as to what constituted a case of cholera, and yet he was aware that such difference of opinion did actually exist—some physicians would not admit any case to be one of cholera, in which there was not blueness and coldness of the surface, profuse perspiration, corrugated extremities, cold tongue and breath, a small, feeble pulse, and a low, husky voice. Dr. C. was not, certainly, in the habit of considering every disturbance of the bowels as cholera, but, at the same time, being required by law to report to the Board of Health, all cases of cholera falling under his care, he did not confine his reports to the patients to whom he was called in the last stage of the disease, but reported, at once, every case seen by him, in which there were fre-

quent whey-like discharges from the bowels, irritability of stomach, great exhaustion, diminished temperature and a dough-like feel of the surface, cramps of the stomach and extremities, a sunken appearance of the eyes, with a dark areola surrounding the orbits. He could not understand the aversion entertained by some physicians to reporting any but the most severe and fatal cases. By not reporting the curable as well as the incurable cases, they certainly did themselves great injustice, and gave to the public a very erroneous opinion of the mortality of the disease.

Dr. Evans has taken the same course as that pursued by Dr. Huston; he has seen some twenty or thirty cases of severe bowel affections, but has reported none; he did not consider them as cases of a malignant character.

Dr. Huston does not know that he has seen a single case of genuine cholera this season. One of the cases he was called upon, about 5 o'clock in the afternoon, to prescribe for, was marked by violent cramps, causing the patient to cry out, in consequence of the pain by which they were attended—by frequent vomiting, and copious colourless discharges from the bowels, coldness of the surface, and an anxious expression of countenance. The patient had been eating cucumbers for dinner. The disease was quickly arrested by laudanum, brandy, sinapisms to the extremities, &c. In another case, the patient was cold to the elbows and knees; the pulse was small and feeble; the countenance haggard. The patient had had diarrhœa the day before; there were no discharges from the bowels when he was called. By the administration of stimulants, the symptoms of disease were soon removed. In another case, the patient was suddenly attacked with vomiting and purging—the discharges had continued all night when he was seen by Dr. H. In the morning, he was labouring under great prostration; there was an anxious expression of countenance, a leaden hue of the face; cold hands, with blueness of the nails; a scarcely perceptible pulse. By the administration of brandy and laudanum, with sinapisms to the extremities, the symptoms of disease were soon arrested, and the patient was perfectly well the next day. These are a specimen of the cases which Dr. H. has seen during the present season. Were they cases of malignant cholera? He did not view them as such, but simply as cases of ordinary cholera morbus, caused by the heat of the weather, and imprudence in eating.

Dr. Jackson stated that he had been familiar with ordinary cholera morbus for the last forty-one years; this year, for the first time, he had seen cholera asphyxia. He immediately perceived the decided difference between the two diseases. There is something so peculiar, so indescribable, in the features of the latter, that like typhus,

yellow, and scarlet fevers, it is impossible to mistake it for any other affection. With respect to the diarrhœas, dysenteries, and other affections of the bowels, which have for some time past been unusually prevalent, they have no affinity with genuine cholera; they will often continue for days, and even weeks, without exhibiting any tendency to run into cholera. He believes the opinion promulgated by Kirke, Cartwright, and Drake, that during the prevalence of epidemic cholera, every one who is attacked with diarrhœa, is already affected with the first stage of cholera, to be erroneous. It is important, certainly, that all affections of the bowels which now occur should be promptly met by appropriate remedies; but the supposition that every attack of ordinary diarrhœa constitutes the initial stage of cholera asphyxia, is unquestionably an error, though happily not a very grave one.

Stated Meeting, September 4th, 1849.

Dr. Meigs, Vice President, in the chair.

Present, thirty-three members.

The Committee on School Discipline, in reference to its influence upon the health of the pupils, reported progress, and were continued.

A similar report was also made by the Committee appointed to investigate the pathological condition of the mucous membrane of the alimentary canal in cholera, which was also continued.

Dr. Condie called the attention of the College to the position of several of the Fellows who are in the service of the United States, as Surgeons in the Navy, and, in consequence, liable to be removed from Philadelphia, in the discharge of their official duties, and often obliged to remain absent for a series of years; and while they are thus deprived of the privilege of attending the meetings of the College, are, nevertheless, chargeable with the same annual contribution as the Fellows permanently residing in the city, and obliged, on their return from abroad, to pay a heavy sum of arrearages in order to secure the continuance of their Fellowship.

On motion, it was Resolved, that the case of those Fellows who are in the service of the United States be referred to a committee to consider whether any, and what relief can be afforded them in relation to arrears of annual contributions falling due during their absence, and to report at the next meeting.

The committee under this resolution are Drs. Bond, Bache, and Condie.

On motion, the College proceeded to the consideration of the additional chapter to the Laws and Ordinances, providing for the election of Curator and Committee on Museum, and defining their duties, proposed at the last meeting; and the same was adopted.

On motion, it was Resolved, that the College will proceed at its next meeting to elect a Curator and Committee on Museum.

A proposition (5) for Fellowship was presented.

Dr. Condie presented the outlines of a case of Spontaneous Hydrophobia. The person in whom it occurred, was a man of the name of Willets, an overseer in the ship-yard of Simpson and Neill, Southwark, about 35 years of age, and of robust frame and active, temperate habits. He had enjoyed, previously, uninterrupted health, being unable to recollect an attack of any severe sickness, excepting a short convulsive paroxysm with which he had been seized several years ago. On Tuesday evening, August 27th, he went home in his usual health. The ensuing morning, on awaking from sleep, he experienced a stiffness along the left side of the neck, and a sense of numbness in the arm of that side; this he attributed to exposure on the preceding night, during a sudden change in the temperature of the air. Dr. T. S. Reed was applied to, who directed an appropriate treatment, which, however, did not abate the symptoms under which the patient laboured. He soon began to complain of pain extending from the occiput along the left side of the neck and body to the epigastrium. Feeling thirsty, he took a tumbler of water in his hand, but on attempting to swallow some, was seized with a most painful sense of suffocation, followed instantly by a general spasm; which, however, continued only a few minutes. A sinapism was applied to the nape of the neck, and a large teaspoonful of laudanum was given, and repeated after an interval of two hours. The patient slept none. During the whole of Wednesday night he was tormented with an urgent thirst, which induced him to attempt to swallow water, but every time the attempt was made, the sense of suffocation and the spasms recurred. Dr. C. saw the patient, with Dr. Reed, at noon on the 29th of August. He found him in a constant state of jactitation; his eyes had a peculiar wild, suspicious look; his tongue was moist, and slightly coated along its centre, with a yellowish mucus; it was somewhat pointed and red at its edges; his skin was cool and moist. He complained of a pain commencing on the left side of his neck and extending down the side of his body, with a sense of weight or constriction at the epigastrium. He answered the questions put to him correctly, but in a quick, sharp tone of voice. He complained of intense thirst, but every time he attempted to drink, he was seized with the most agonizing sense of suffocation. To show me the manner in which it affected him, he

seized a glass of water which stood upon the bureau in his room, and by a sudden, jerking motion, brought it to his lips; on attempting to swallow a few drops, he became violently convulsed; threw his limbs about in a wild agitated manner; his eyes staring wildly open; his face assuming a dark hue, and his whole chest heaving as of one in the agony of suffocation. During the paroxysm his pulse was contracted, hard, and frequent, but immediately upon its close, it became more developed, soft, and slow; the face, at the same time, lost its flush, and the forehead became covered with a profuse perspiration. As soon as the paroxysm, which lasted only for a few minutes, ceased, the patient became perfectly rational, but continued in a state of constant rapid motion, getting up and lying down—first on one side then on the other; and ejecting, every few minutes, from his mouth, with great force, and every time in a different direction over the room, a small portion of thick frothy saliva. There was no redness nor swelling of the fauces, nor was any pain or uneasiness excited by pressure upon the throat or epigastrium. As the patient lay upon his back, I took up a fan unperceived by him, and with it gently agitated the air over his face; he was immediately seized with the same convulsive paroxysm as on attempting to swallow fluids, but less intense, and of shorter duration. The mention and sight of water caused, he said, a sense of constriction in the throat, and a peculiar, indescribable dread. The air blew directly upon him, through an open window, at the side of his bed; this caused him no uneasiness, it was rather, he declared, agreeable to him. Bodies in motion, as the waving of the window curtain, or the agitation of the trees seen from his room, produced no effect upon him. He declared that he had never been bitten by a dog, nor had, for the last eighteen years, received any wound or contusion. Upon a minute examination of his body, no cicatrix could be discovered. He attributed the symptoms under which he was labouring, to his having become overheated while working in the sun, and then chilled in consequence of a sudden change in the temperature of the air. He was directed Dover's powder in scruple doses, to be repeated at short intervals, and half drachm doses of chloroform. A blister was applied to the nape of the neck, and an active cathartic was administered. But a very small portion of the medicine was taken, as every attempt to swallow brought on instantly a sense of impending suffocation, and a violent paroxysm of convulsions. Towards the latter part of the day the patient became very much agitated, wandered over the house, and offered violence to those who attempted to restrain him. In the evening he was more calm, and took some bread soaked in tea, the swallowing of which was attended with only slight difficulty. He now complained of pain at the top of his head; the whole head felt hot; there was a slight injection of the eyes; the pulse was full and firm. Cold applications were directed to his head, and his feet were immersed

in hot mustard water. Blood to the amount of twelve or fourteen ounces was taken from his arm, when his pulse sunk and he soon after fainted. He now became more tranquil; the inability to drink fluids still, however, continued. Early on the morning of the thirtieth he died; his death being unpreceded by coma and unattended by convulsions. No post mortem examination could be obtained.

After his death a report was circulated that the patient had been bitten by a pup he was handling, which subsequently died, but upon investigation, this report was found to be unsupported by any satisfactory evidence of the fact. It was unquestionably a case of spontaneous hydrophobia.

Dr. S. G. Morton read the following

BIOGRAPHICAL NOTICE

OF THE LATE

GEORGE McCLELLAN, M. D.

It was remarked by a celebrated historian, that a man cannot speak long of himself without vanity; and the maxim may, perhaps, be extended to those who discourse of their friends. On the present occasion, therefore, I shall study to be brief.

George McClellan was born on the 22d of December, 1796, at Woodstock, in Connecticut. His family, which was highly respectable, was in part of Scotch, in part of English lineage, and afforded several enthusiastic partisans of freedom in the war of Independence.

The subject of these remarks, after receiving the usual academical instruction in his native town, and under the watchful eye of an affectionate father, entered the Sophomore class of Yale College at the age of sixteen years, and in due time received the honors of that venerable institution.

His collegiate life was marked by singular quickness of perception, readiness in the acquisition of knowledge, and an enthusiastic, but immethodical devotion to his studies. His talent particularly displayed itself in mathematics and the languages: in the former, he showed proficiency; in the latter, his attainments were far above mediocrity. He also manifested a fondness for natural history; and his zeal and success in its cultivation, are favourably recorded in the early numbers of the American Journal of Science, then, as now, edited by the distinguished Professor Silliman.

His collegiate education completed, we next find this young man, in the year 1817, pursuing his medical studies in this city under the direction of the late Dr. Dorsey. Here, again, his restless activity and sleepless vigilance in the pursuit of knowledge, were remarked and admired by all; exciting the surprise of his fellow students, and drawing from older heads, the presage of future distinction. He took his medical degree in 1819, and at once entered on the arduous duties of his adopted vocation.

We do not propose to follow the phases of this gifted mind through its professional cycle of thirty years. To the eye of the casual observer, the path of the physician presents, from day to day and from month to month, the same unvaried uniformity,—a perpetual recurrence of similar scenes and circumstances, of which the busy world feels nothing and knows nothing. But how different is it with him, who, in the struggle for distinction, is alternately cheered by hope and dashed by disappointment—warring with caprice, mingling with disease and contending with death! These things however, are buried with the dead. They pass into oblivion; or at most, nothing remains of them except a few scattered memorials, which rise like wrecks upon the sea to attract the attention of the beholder.

It is to some of these more prominent events in the life of Dr. McClellan, that I propose now to advert. In so doing, I feel conscious of acting in accordance with his views when living; and "the wishes of the dead, when they can be discovered," observes the younger Pliny, "should be law to an honest mind."

After having given a private course of anatomical lectures, Dr. McClellan conceived the bold idea of founding a new medical school. With him, thought and action were simultaneous; a memorial was addressed by himself and others to the Legislature of Pennsylvania, and a charter was obtained in the winter of 1825, for the Jefferson Medical College.

I venture to assert, from a personal knowledge of the time and circumstances, that no professional innovation was ever more unfavourably received by the physicians of Philadelphia, than this. It had a direct tendency to isolate its author, and certainly influenced his destiny throughout life. It was assumed and asserted that there was not patronage for the support of two schools, and that the new one could only succeed at the expense of its elder rival. And inasmuch as the whole scheme was regarded as a professional heresy, it need not be added that its partisans met with no favour.

Dr. McClellan reasoned differently. He maintained that students would flock to this city in numbers proportioned to the increased facilities for education; and that each institution might be amply supported without any conflict of interest. What has been the result? In place of five hundred students, which was

the maximum number before this competition was organized, Philadelphia now annually enrols a thousand; embracing a portion of the genius and talent of every state of the Union.

It is important, however, to observe, that owing to the general disapproval of the plan of a new College, Dr. McClellan met with great difficulty in organizing a medical faculty; and his colleagues were unavoidably chosen from among men greatly inferior in talent to himself. Incongruous elements were thus associated together; dissensions arose, and disunion followed. Yet notwithstanding all these adverse circumstances, Dr. McClellan had the satisfaction, in the year 1836, to welcome no less than 360 pupils into the school he had founded.

Dr. McClellan's lectureship was *Surgery*; and he continued his instructions in this branch until the year 1838, when for reasons unknown to the writer of these pages, the professorships of Jefson College were all vacated by a decision of the Board of Trustees, and a new organization took place, from which Dr. McClellan's name was excluded. This new faculty was composed of men of distinguished attainments. The medical public acquiesced in the change; Jefferson College was received into favour, and collegiate competition was thereby legitimised. So true is the adage that times change, and we change with them: "Tempora mutantur et nos mutamur cum illis."

Dr. McClellan thus lived to experience the proverbial misfortune of most pioneers and discoverers, who sow the seed of which others reap the harvest.

Mortified but not discomfited, by this adverse issue of his cherished plans, Dr. McClellan immediately conceived the project of a third medical school; and with characteristic buoyancy of spirit and determination of purpose, he went in person, accompanied by a single professional friend, to solicit a charter from the State Legislature. Corporate privileges were, in consequence, granted to an institution entitled, "The Medical Department of Pennsylvania College" at Gettysburg, and McClellan, with five associates, of whom the writer was one, commenced the initiatory course of lectures in Philadelphia, in November, 1839.

This institution had an auspicious beginning in a class of nearly one hundred pupils, between which number as a maximum, and eighty as a minimum, it continued under the direction of the same faculty for four consecutive years. Notwithstanding this seeming prosperity, it is due to Dr. McClellan's memory to state, that some injudicious pecuniary arrangements, entered into in the first instance, and in which he had no part, tended to embarrass the institution through the entire period to which we have alluded.

The sinister effect of these arrangements was soon felt by all concerned; and nothing but a mutual sense of honor sustained the faculty, in combined exertion, during four annual courses of lectures, the last of which terminated in the spring of 1843.

Soon after this date, the entire faculty resigned their professorships into the hands of the Trustees. The motive that influenced a part of these gentlemen in taking this step, may be inferred from the preceding statement; other members were influenced, at least in degree, by other considerations to which it is unnecessary here to advert. It may, perhaps, be safely asserted, that Dr. McClellan was the only member of the faculty who reluctantly abandoned this, his last and cherished enterprise. His zeal and enthusiasm could see nothing but success in the future; and he never abandoned the conviction, that further perseverance would have been crowned with commensurate reward.

The remaining portion of Dr. McClellan's life was passed in the active duties of his profession. His final illness was severe, his death sudden. On the morning of the 8th of May, 1847, he assisted in the performance of two surgical operations. He came home soon after noonday, complaining of indigestion, which was quickly followed by symptoms analogous to those of bilious colic. These increased every moment in severity. Medicines at length afforded some mitigation of his suffering, and, for a short time, gave promise of relief; but it was presently observed, that as his pain abated, exhaustion and restlessness followed. These symptoms increased towards evening, and at eleven o'clock at night, to the surprise and dismay of his family and friends, the hand of death was evidently upon him. His mind continued clear, but his articulation became hurried and indistinct. At midnight he was pulseless, and soon afterwards fell asleep; and in this state of unconscious tranquillity he died at half-past one o'clock the same night.

As a surgeon, Dr. McClellan established for himself a reputation that has become proverbial wherever the healing art is esteemed and fostered. Few men in private practice, in this country, have operated so frequently. His list included almost every capital operation known to surgeons, together with others that were original to himself; and these multiplied efforts of his genius were rewarded with a full share of success.

His almost intuitive perception of disease, led to a promptness of decision and a rapidity of operation that were sometimes regarded as akin to rashness. The sight of blood, however profusely poured out, never dismayed him, because, as he remarked, he knew how to control the bleeding vessels. Every cut of the knife was made with a confidence that could result only from knowledge. In the midst of the severest operations, he continued his conversational remarks with the same coolness as if he had been a mere spectator; whence it happened that differently constituted minds inferred that he was unfeeling, and even cruel.

I cannot, perhaps, offer a better commentary on these points

than a memorandum of my own, bearing date of March 8, 1845, which I transcribe *verbatim:*

"The day before yesterday I was present at an operation performed by Dr. George McClellan, on a gentleman from Virginia. It consisted in the removal of the whole of the *parotid gland* in a schirrous and much enlarged state, from the left side of the face. Nothing could exceed the combined coolness and skill manifested by Dr. M. throughout this terrible operation, which he has now performed for the eleventh time, and hitherto with remarkable success. On this occasion, however, he was doomed to disappointment, for the patient died last night, about thirty-six hours after the operation. McClellan sent for me in the evening, to see the dying man with him, and we met in the chamber of death between ten and eleven o'clock. I had sometimes heard McClellan spoken of as a heartless surgeon, devoid of feeling or sympathy for those who came under his knife; but I can solemnly aver that I have seldom witnessed more unaffected sorrow than he manifested on this occasion. He walked the room incessantly, and repeatedly clasped my hands in his, while he expressed, in emphatic language, the feelings that preyed upon his mind. He moreover assured me, that he seldom performed one of his severer operations without first asking the blessing of God on his undertaking; and that days and nights of painful anxiety, often preceded those great professional efforts which have justly placed his name on the pinnacle of surgical fame. The gurgling respiration of the unfortunate patient announced the near approach of death, and I withdrew, full of sympathy for the agonized emotions of my friend."

Dr. McClellan's excellent classical education was blended with a continued fondness for literary pursuits, and a lively interest in general science. He read much, but wrote little. He always took up his pen with reluctance; and it was only at the earnest and long-continued promptings of his friends, that he at length commenced his "Principles of Surgery." The first printed sheet was placed before him during his brief illness; but he was already too much exhausted to notice its contents. The work, however, has been ably edited by his son, and it is now before the world an abiding memorial of the skill and genius of its author.

Novelty in practice is not the test of excellence or superiority in either surgery or medicine. The annals of our profession are full of proofs of the truth of this axiom. Dr. McClellan has made no parade of originality; but he has set forth, with the hand of a master, the multiplied experience of more than a quarter of a century; and this experience was no doubt as extensive as that of any private practitioner among us, during that long period of professional toil. Skill, decision and promptness were in him remarkably conspicuous, and they were combined with a judg-

ment that had become matured in the school of observation and reflection. In the "Principles of Surgery," we find no temporizing treatment, no timid practice; but the positive knowledge of a mind that knew and relied upon its own resources.

Dr. McClellan possessed a sensitive and generous spirit, blended with a confiding manner that strongly marked his intercourse with men. His feelings were quickly excited and warmly expressed at the sense of unkindness or injustice; but there was a magnanimity in his nature that readily forgave an injury. He often regretted the differences into which he was led by the impulsive indiscretion of youth; and emphatically declared, that were it possible to live that part of his life over again, his course should be influenced by greater conciliation and forbearance. In connection with this subject, however, it must not be overlooked, that the period between the years 1820 and 1830 was one of peculiar professional disunion; and that Dr. McClellan, in common with many of his medical brethren, was hurried into controversies which, if they cannot be forgotten, should at least be remembered with charity.

That Dr. McClellan possessed some of those traits called the "infirmities of genius," we are free to admit; but we may observe, in passing, that such infirmities are not, perhaps, more common to genius than to dullness itself. The difference is simply this—that they are conspicuous by contrast in the one, while they are overlooked or despised in the other.

Dr. McClellan was remarkable for exuberance of thought; and this attribute was responded to by corresponding volubility of speech. In lecturing or in conversation, he was never at a loss for words; yet in spite of this amazing fluency, his ideas manifestly accumulated more rapidly than his tongue could give them utterance. He was communicative and confiding to the last degree, without seeming to be governed by those prudential considerations that habitually influence mere cautious minds.

He was married in the year 1820, to Elizabeth, daughter of the late John H. Brinton, Esq., and five children yet survive him. The eldest, who is one of our colleagues, already holds an enviable position in our common profession. The second son, after graduating with great distinction at West Point, fought throughout the final campaign in Mexico, from Vera Cruz to the capitol, thus sharing the glory of the "great Captain" who has won the laurels of Cortez unsullied by crime.

On motion, it was Resolved, that 500 extra copies of the Biographical notice just read, be printed, and distributed at the discretion of the author.

Stated Meeting, October 2d, 1849.

Dr. Wood, President, in the chair.

Present, twenty-two members.

Propositions (6 & 7) for Fellowship were presented.

Dr. Bache announced that he would be prepared to read at the next meeting of the College, a Biographical memoir of its late President, Dr. Thomas T. Hewson.

The Committee, to whom was referred the subject of the annual contributions chargeable to those Fellows of the College who are absent from the City as surgeons in the service of the United States, reported:

That they have given due attention to the subject, and recommend that the following addition be made to the 11th Section of Chap. II of the Ordinances and By-Laws:

Provided, however, that if any Fellow shall be absent from Philadelphia, on public service in the Army or Navy of the United States, for twelve months or more, at any one time, a deduction shall be made from the amount of his annual contributions, corresponding to the duration of his absence.

The said report being accepted, the addition to the Ordinances and By-Laws therein recommended, was proposed, in accordance with the provisions of the 11th Chapter of the Laws of the College, by Drs. Bond, Bache, Condie, Paul, and A. Stille.

The College, on motion, proceeded to ballot for a Curator of, and Committee on Museum, when the following were elected.

Curator,

John Neill, M. D.

Committee,

Moreton Stille, M. D.
Edward Hallowell, M. D.
Isaac Parrish, M. D.

Dr. Hays remarked that at a former meeting of the College, among other cases of intense irritability of the retinic coat of the eye, resulting from irritation of the dental branch of the fifth pair of nerves, he had mentioned one which occurred in a gentleman from Carolina; he was now able to relate the subsequent history of that case. He had been misinformed in regard to this patient having had an attack of paralysis. Within the last month, Dr. H. received a visit from the gentleman himself, who stated that when he returned home from Philadelphia, he was sufficiently recovered from the affection of his eyes, to resume his duties as cashier of a bank, and to read and write with only slight inconvenience, even by artificial light after the close of the day. That in this state he continued for about two years, when, one morning he awoke with a severe pain along the course of the crural nerve, in both of his lower extremities; the pain increased during the day, so that by evening, his limbs became contracted, so much so as to deprive him of the power of extending them. At the end of six weeks, during which he suffered from the most intense pain, an ulcer formed upon one of the legs, and immediately the neuralgic pains of his thighs and legs ceased, and his eyes became perfectly restored from the slight amount of irritability with which they had been affected, and they have remained perfectly well ever since. The ulcer in the one leg, was some time afterward followed by another in the opposite limb. As one healed, another would break out in the one or other leg. For the space of four years these ulcers continued; there being sometimes two, or even three running at the same time. He consulted Dr. Hays during the present summer, for the purpose of having them healed; but the Doctor advised him rather to suffer the inconvenience they occasioned, than run the risk of the injury that might result, if they were dried up, as it was possible that they were the result of an effort on the part of the organism to rid itself of some latent source of disease. The gentleman being about to go North, he was recommended to visit Saratoga, and spend some time there, for the purpose of trying the effects of its mineral springs. He followed out this recommendation, and after spending a couple of weeks at Saratoga, he came to Philadelphia. His general health was now greatly improved, but he still had on one leg, one ulcer, and on the other two, which he was very solicitous to have healed. In consultation with Dr. Jackson, it was proposed to him, that if he would submit to the insertion of an issue in his arm, an attempt would be made to heal the ulcers. The issue being established, the ulcers were treated according to Baynton's method, and two were healed, but one resisted every plan of treatment that was tried. The one that remained, had existed only two years, while the two that were healed, were of four years standing. When the gentleman left, he was recommended to try the effects of the iodide of potassium, and to continue the treatment.

Dr. Jackson remarked that the case just related, showed very strongly, the great importance of issues in promoting the healing of chronic ulcerations. He believed that they had been of late years, too much neglected, in the treatment of many chronic affections, the removal of which was scarcely possible without their aid. He had been in the habit of employing them, during the period of his practice in Northumberland, very extensively, and to keep up the discharge from them, preferred the Savine ointment to all others. He deplored the difficulty there was in now procuring good Savine, in even the shops of our best druggists.

Dr. Coates remarked that during the five years period of his pupilage in the Pennsylvania Hospital, he had repeated opportunities of witnessing the good effects of issues in facilitating the healing of ulcers; they were a favourite remedy in cases of indolent and chronic ulcers, with Dr. Physick, and Dr. C. was convinced that they had latterly fallen too much into disuse.

Dr. A. Stille inquired of Dr. Hays, whether, in the gentleman whose case had been detailed by him, there was any hereditary tendency to gout?

Dr. Hays replied, that the gentleman had informed him, that he was not aware of any tendency to disease, of any kind, in any branch of his family.

Dr. H. remarked, that at the former meeting when he related several cases of irritability of the retina traceable to diseased teeth, he had done this on the spur of the moment, in consequence he had forgotten some cases of a similar kind which had fallen under his notice, the outlines of one of which he would now take the liberty of detailing. A gentleman, formerly a resident in this city, and devoted to chemical inquiries, became a sufferer from extreme photophobia, which he ascribed to having carried on very closely, for a long time, a series of chemical analyses over a bright charcoal fire. The affection of his eyes became so severe as to prevent him from following his usual pursuits. The glare of the fire in his furnace became intolerable, and it was even impossible for him to read or write without intense suffering. He was, at the same time, affected with neuralgic pains of the face and orbit. Upon examining his mouth, it was found that a number of his teeth were decayed; the aconita ointment was tried, and afforded some relief to the neuralgic pains. After having, by Dr. H.'s advice, several of the most decayed teeth removed, he found his photophobia diminished considerably in intensity. He visited Baltimore on some business, and on his return his eyes were again affected, as they had been previously. Dr. H. supposed that he had been too closely engaged whilst at Baltimore, in pursuits which had over-exercised his eyes, but this

the patient declared was not the case; he mentioned, however, the fact that some of the remaining teeth had begun to decay; these the doctor advised him to have extracted, which was done, and his photophobia was again relieved. The gentleman's teeth decayed very rapidly, and others still became diseased; but upon their removal, the affection was relieved as before. Many teeth were thus removed, and an artificial set substituted. Dr. H. has been informed that he still continues well.

Dr. F. G. Smith said that he believed he could add another case of irritable retina, arising from decayed teeth, to the series presented by Dr. Hays. He had been in attendance on a young lady who suffered from intense intolerance of light, with neuralgic pains over the brow and through the ball, together with other characteristic symptoms which caused him to fear there existed a tendency to amaurosis. After reading the cases related by Dr. Hays, as given in the Summary of our Transactions, the suspicion arose that the affection of the eyes, in the young lady alluded to, might be caused by decayed teeth. A respectable dentist was requested to examine her teeth, but he declared, after a close inspection, that he could discover no defect in any of them. Dr. S. urged a second examination, and, on going carefully over the teeth, some degree of tenderness was detected in one of the bicuspids on the side corresponding with the eye most affected. This tooth was drawn, and an abscess was discoverd to exist at its root. With the extraction of the tooth the photophobia and pain ceased, and have not since returned, though several months have elapsed, during which the lady has been subjected to great mental distress from family afflictions. She can now read by artificial light without experiencing the least inconvenience, and has been enabled to resume her studies, which had been previously suspended in consequence of her great suffering.

Dr. Parrish stated that he had, not long since, seen a case of nervous disease which, although sufficient time has not elapsed to confirm his impression that it resulted from an irritation produced by decayed teeth, shows that after dentists have examined the mouth and pronounced the teeth free from disease, there may still be an abscess at the root manifest after extraction.

A gentleman was suddenly seized, whilst walking in the face of a north-east wind, with a twitching of the muscles of one side of the neck, by which his head was drawn round to one side, and fixed there for a short period. Dr. P. was sent for, but when he arrived at the gentleman's residence the affection had ceased. Various remedies were prescribed, and there was no return of the disease until some time afterwards, when the patient was on his return from a visit to South Carolina. Sitting in the rail road car opposite an open window

he experienced a twitching in the side of his face, which increased rapidly in intensity, and eventuated in a paroxysm of convulsions. On arriving in Philadelphia he sent for Dr. P., who feared that the recent attack of the gentleman might be the commencement of epilepsy. A second paroxysm of convulsions did not, however, occur. Having heard the cases of nervous irritation produced by diseased teeth, detailed by Dr. Hays at a former meeting of the College, Dr. P. was led to suspect that in this case the teeth might be in fault; especially as the several paroxysms appeared to originate from one point. On examining the mouth, a tooth on the side of the face where the muscular twitching, and subsequently, the pain had occurred, was found, when struck on by a metallic substance, to be tender. In consequence of previous decay, a large plug had been inserted into it some years before. The plug was still firm, and there were no indications that the decay had progressed since its insertion. An eminent dentist was requested to examine the tooth, who gave it as his opinion that nothing was the matter with it, and declined to extract it. Dr. P. recommended him to call again on the dentist and request that he would draw the tooth. This was done, and the tooth proved to be in a very decayed condition, with a considerable abscess at its root. Since then the gentleman has had no return of the twitching pain or convulsions, so far as Dr. P. has been able to ascertain, He has been absent from the city for six months past, but Dr. P. has heard from him recently.

Dr. Coates alluded to a number of cases of disease connected with diseased teeth, the result of the use of acids, mercury, &c.

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